```
=> s l1-l2
L4          56 (L1 OR L2)

=> s l4 and l3
L5          12 L4 AND L3

=> d l5 ibib abs 1-12

L5   ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:        2006:1265933  HCAPLUS
TITLE:                   Light-stable vitamin E by inclusion in .gamma
                         .-cyclodextrin
AUTHOR(S):               Regiert, Marlies
CORPORATE SOURCE:        Wacker Chemie AG, Burghausen, 84489, Germany
SOURCE:                  NutraCos (2006), 5(4), VD2-VD6
                         CODEN: NUTRCP; ISSN: 1720-4011
PUBLISHER:               B5 srl
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   Vitamin E is known as the "protective vitamin" which, in its alc.,
     effective form, is so sensitive to light and air that it needs protecting
     itself.  Microencapsulation, which is occasionally employed, does not
     completely succeed in satisfactorily stabilizing the α-tocopherol,
     and it involves certain disadvantages in terms of application technol.
     Until now, therefore, the cosmetics and pharmaceutical industries have not
     had any truly light-stable α-tocopherol at their disposal.  This
     shortcoming has been remedied by a new development by Wacker Fine Chems.,
     in which α-tocopherol is effectively protected by its mol. inclusion
     in cyclodextrin, from where it is released in a controlled
     manner.  The product was developed by complexing with .gamma.-
     cyclodextrin, and is resistant to the effects of air and light, as
     has been demonstrated by studies of its thermal, storage and light
     stability.  Under conditions like those found after a formulation has been
     applied to the skin, d-α-tocopherol is released from this host-guest
     inclusion compound in a controlled way.  This means that
     d-α-tocopherol has become available in a light-stable form for use
     in cosmetic products.
REFERENCE COUNT:         7     THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5   ANSWER 2 OF 12  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:        2006:795378  HCAPLUS
DOCUMENT NUMBER:         145:212937
TITLE:                   Solvent-free dispersions of 1:1 or 2:1
                         cyclodextrin-perfume complexes
INVENTOR(S):             Regiert, Marlies; Zeh, Harald; Kupka,
                         Michaela
PATENT ASSIGNEE(S):      Wacker Polymer Systems G.m.b.H. & Co. K.-G., Germany
SOURCE:                  Ger. Offen., 19pp.
                         CODEN: GWXXBX
DOCUMENT TYPE:           Patent
LANGUAGE:                German
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     DE 102005005633       A1    20060810    DE 2005-102005005633     20050208
     WO 2006084586         A1    20060817    WO 2006-EP694            20060126
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
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KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: DE 2005-102005005633A 20050208

AB The title complexes, which are atable for several years, are prepared from α-, β-, or . gamma.-cyclodextrin, methyl-β- or -. gamma.-Cyclodextrin, or hydroxypropyl-β- or -. gamma.-Cyclodextrin. A mixture of β- cyclodextrin (H2O content 10%) and 1500 mL H2O was heated to 70°, mixed with 202 g citral, stirred at 70° for 1 day, and dried in vacuo to give 1700 g complex containing 10% citral and 4.5% H2O. Use of the complexes in coatings is exemplified.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:448306 HCAPLUS
DOCUMENT NUMBER: 145:235316
TITLE: Stabilizing linoleic acid by complexation with α- cyclodextrin
AUTHOR(S): Regiert, Marlies
CORPORATE SOURCE: Wacker-Chemie AG, Burghausen, Germany
SOURCE: Cosmetics & Toiletries (2006), 121(4), 43-50
CODEN: CTOIDG; ISSN: 0361-4387
PUBLISHER: Allured Publishing Corp.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. In the form of a mol. inclusion compound with α-cyclodextrin, linoleic acid effectively is protected against oxidation Investigations into the storage and light stability, olfactory tests and headspace anal. of the formulations give evidence of the stability of a suitable inclusion compound

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:657391 HCAPLUS
DOCUMENT NUMBER: 143:158697
TITLE: Light stability of vitamin E by encapsulation in . gamma.-cyclodextrin
AUTHOR(S): Regiert, M.
CORPORATE SOURCE: Germany
SOURCE: SOFW Journal (2005), 131(5), 10, 12-18
CODEN: SOFJEE; ISSN: 0942-7694
PUBLISHER: Verlag fuer Chemische Industrie H. Ziolkowsky
DOCUMENT TYPE: Journal; General Review
LANGUAGE: German

AB A review on skin aging by UV radiation radical scavenging by vitamin E in skin protection and skin care products, effectiveness of α-tocopherol and its ester, mol. encapsulation of α-tocopherol in .gamma.-cyclodextrin, and stability of the . gamma.-cyclodextrin/α-tocopherol complexes in cosmetic formulations.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:402912 HCAPLUS
DOCUMENT NUMBER: 140:412001
TITLE: Cosmetic composition comprising a complex of cyclodextrin and vitamin F
INVENTOR(S): Regiert, Marlies; Kupka, Michaela
PATENT ASSIGNEE(S): Wacker-Chemie GmbH, Germany
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1419761	A1	20040519	EP 2003-26137	20031113
EP 1419761	B1	20051019		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
DE 10253042	A1	20040603	DE 2002-10253042	20021114
KR 2004042827	A	20040520	KR 2003-77579	20031104
US 2004096413	A1	20040520	US 2003-712703	20031112
JP 2004161775	A	20040610	JP 2003-385675	20031114

PRIORITY APPLN. INFO.: DE 2002-10253042 A 20021114

AB The invention concerns cosmetic and dermatol. compns. that contain complexes of vitamin F with α, β, or . gamma.-cyclodextrin. Addnl. substances in the formulations are: silicone oils, moisturizers, skin care substances, gelation agents, bactericides, antioxidants, sunscreens, emulsifiers, pigments, tanning agents, etc. Thus 0.1 mol α- cyclodextrin was mixed with 100 g water; 0.1 mol linolic acid was added, homogenized and stirred for 30 h at RT and for 8 h at 70°C; the product was dispersed in water, filtered, washed and dried under vacuum. A composition contained (weight/weight%):α-cyclodextrin-linolic acid complex 4.0; .gamma.-cyclodextrin-α-tocopherol complex 1.5; octyl palmitate 2.5; octyl stearate 3.5; polyglycerol-2 sesquiisostearate 2.0; cyclomethicone, dimethiconol 3.0; lauryl dimethicone 2.0; octyl dimethicone ethoxy glycoside, cyclomethicone 12.0; titanium dioxide 5.0; polymethylsilsesquioxane 1.0; zinc oxide 2.0; glycerin 2.0; methylparaben 0.1; sodium chloride 0.4; water 59.0.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:744004 HCAPLUS
DOCUMENT NUMBER: 140:344479
TITLE: Cyclodextrins: an other tool for encapsulation
AUTHOR(S): Regiert, M.
CORPORATE SOURCE: Cyclodextrin for Personal Care, Flavour/Fragrance, Biotech Wacker Specialties Customized Chemical Solutions, Wacker-Chemie GmbH, Burghausen, 84489, Germany
SOURCE: SOFW Journal (2003), 129(6), 2, 4, 6, 8
CODEN: SOFJEE; ISSN: 0942-7694
PUBLISHER: Verlag fuer Chemische Industrie H. Ziolkowsky
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. Cyclodextrins are ring-shaped cylindrical mols. comprising a number of linked glucose mols. Their complexes have the ability to wrap each individual mol. of the active ingredient, a process known as complexation. The cyclodextrins act as the host and the accommodated mol. is the guest, which can be any mols. that are both small

enough to fit inside the cavity and are non-polar enough to interact with the lipophilic internal surface. In cosmetic and personal care products, the resulting complex releases the cosmetic substances on the skin, exactly where it is needed and very reliably too. The advantages of using cyclodextrins in various products are described.

L5 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:532338 HCAPLUS
DOCUMENT NUMBER: 139:90089
TITLE: A complex of β- or . gamma.-cyclodextrin and α-tocopherol
INVENTOR(S): Regiert, Marlieś; Kupka, Michaela
PATENT ASSIGNEE(S): Wacker-Chemie Gmbh, Germany
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003130231	A1	20030710	US 2002-323019	20021219
DE 10200657	A1	20030724	DE 2002-10200657	20020110
FR 2834512	A1	20030711	FR 2003-122	20030108
FR 2834512	B1	20060421		
JP 2003238402	A	20030827	JP 2003-2255	20030108

PRIORITY APPLN. INFO.: DE 2002-10200657 A 20020110
AB A method of stabilization of α-tocopherol against oxidative decomposition or UV-induced decomposition is provided. The method comprises preparation of complexes of β- cyclodextrin or .gamma.-cyclodextrin and α-tocopherol in a cyclodextrin /tocopherol molar ratio of 2:1. The complexes are used in cosmetic formulations, such as a sunscreen cream, an after-sun lotion, a liquid makeup, or a body emulsion.

L5 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:144110 HCAPLUS
DOCUMENT NUMBER: 132:180736
TITLE: Procedure for the complexation of retinol with cyclodextrins
INVENTOR(S): Regiert, Marlies; Moldenhauer, Jens-Peter
PATENT ASSIGNEE(S): Wacker-Chemie G.m.b.H., Germany
SOURCE: Ger., 6 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19847633	C1	20000302	DE 1998-19847633	19981015

PRIORITY APPLN. INFO.: DE 1998-19847633 19981015
AB A procedure for the production of a stable retinol/γ-CD complex, in which retinol is complexed with γ-CD in an aqueous solution, is characterized by complexation of retinol in the form of a polysorbate solution
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:56520 HCAPLUS

DOCUMENT NUMBER: 132:313521
TITLE: Stabilization of retinol with .gamma.-cyclodextrin
AUTHOR(S): Wimmer, T.; Regiert, M.; Moldenhauer, J.-P.
CORPORATE SOURCE: Wacker-Chemie GmbH, Burghausen, D-84489, Germany
SOURCE: Proceedings of the International Symposium on Cyclodextrins, 9th, Santiago de Comostela, Spain, May 31-June 3, 1998 (1999), Meeting Date 1998, 407-410. Editor(s): Labandeira, J. J. Torres; Vila-Jato, J. L. Kluwer Academic Publishers: Dordrecht, Neth.
CODEN: 68NHAE
DOCUMENT TYPE: Conference
LANGUAGE: English
AB β- And . gamma.-cyclodextrin inclusion compds. of retinol were prepared under nitrogen atmospheric by known methods. Generally a molar ratio of 2: 1 (CD:retinol) was found. Comparative storage studies of different complexes and phys. mixts. with lactose were performed using day light and UV radiation. The best stabilization was obtained using . gamma.-cyclodextrin which leads to new potential uses for γ-CD also in health care applications.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:653668 HCAPLUS
DOCUMENT NUMBER: 129:265197
TITLE: Complexes of .gamma.-cyclodextrin and retinol or retinol derivatives, their manufacture and use
INVENTOR(S): Moldenhauer, Jens-Peter; Regiert, Marlies; Wimmer, Thomas
PATENT ASSIGNEE(S): Wacker-Chemie G.m.b.H., Germany
SOURCE: Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 867175	A1	19980930	EP 1998-104984	19980319
EP 867175	B1	20000809		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19713092	A1	19981001	DE 1997-19713092	19970327
JP 10279504	A	19981020	JP 1998-39203	19980220
JP 3010435	B2	20000221		
CA 2233108	C	19980927	CA 1998-2233108	19980320
CA 2233108	A1	19980927		
US 5985296	A	19991116	US 1998-45342	19980320
HU 9800688	A2	19990201	HU 1998-688	19980327

PRIORITY APPLN. INFO.: DE 1997-19713092 A 19970327
AB Formation of inclusion compds. of retinol, retinol derivs., or retinoic acid with .gamma.-cyclodextrin protects the retinoids from oxidation or UV-A-induced photolysis during storage. These inclusion compds. are more stable than corresponding compds. with β-cyclodextrin, and are useful in anti-aging cosmetics and pharmaceutical formulations. Thus, 1097 g .gamma.-cyclodextrin was stirred with 1900 mL distilled water, heated to 90°, cooled to 50° under N2, stirred with 100 g retinol at 50° for 72 h, and cooled to room temperature; the inclusion compound was separated by filtration and dried. An anti-wrinkling cream contained distilled

water 650, .gamma.-cyclodextrin 100, macadamia nut oil 190, jojoba oil 30, avocado oil 20, and .gamma.-cyclodextrin complex containing 9.8% retinol 10 weight parts.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:673021 HCAPLUS
DOCUMENT NUMBER: 127:298554
TITLE: Stabilization and dispersion of plant oils containing polyunsaturated fatty acid residues by complexation with .gamma.-cyclodextrin
INVENTOR(S): Wimmer, Thomas; Regiert, Marlies; Moldenhauer, Jens-Peter
PATENT ASSIGNEE(S): Wacker-Chemie Gmbh, Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19612658	A1	19971002	DE 1996-19612658	19960329
CA 2246282	A1	19971009	CA 1997-2246282	19970327
CA 2246282	C	20020924		
WO 9736972	A1	19971009	WO 1997-EP1581	19970327
W: CA, JP, NO, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 889944	A1	19990113	EP 1997-914318	19970327
EP 889944	B1	19991222		
R: BE, CH, DE, FR, GB, IT, LI				
JP 11506496	T	19990608	JP 1997-534924	19970327
US 6025510	A	20000215	US 1998-142568	19980915

PRIORITY APPLN. INFO.: DE 1996-19612658 A 19960329
WO 1997-EP1581 W 19970327

AB Plant oils with a high content of polyunsatd. fatty acid-containing triglycerides are stabilized against autoxidn. by addition of .gamma.-cyclodextrin, which forms inclusion complexes with the oils. The oils are useful in skin care products and as a source of essential fatty acids in foods. Complexation of the oils with .gamma.-cyclodextrin also promotes formation of stable oil-in-water emulsions. Thus, a complex was prepared by mixing 180.0 g evening primrose oil with a solution of 833.8 g .gamma.-cyclodextrin in 1945 mL distilled water at 45°, stirring for 30 h, cooling to room temperature, filtering, and drying; the yield of complex was 802.1 g. After 38 days storage at room temperature in daylight, the oil in the .gamma.-cyclodextrin complex had a peroxide number of 113, compared to 159 and 251 for complexes with α- and β- cyclodextrin, resp., and remained odorless and colorless, whereas the latter 2 complexes were rancid and yellow.

L5 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:27189 HCAPLUS
DOCUMENT NUMBER: 126:176631
TITLE: Application of .gamma.-cyclodextrin for the stabilization and/or dispersion of vegetable oils containing triglycerides of polyunsaturated acids
AUTHOR(S): Regiert, M.; Wimmer, T.; Moldenhauer, J.-P.
CORPORATE SOURCE: Wacker-Chemie GmbH, Munich, D-81737, Germany
SOURCE: Journal of Inclusion Phenomena and Molecular Recognition in Chemistry (1996), 25(1-3), 213-216

CODEN: JIMCEN; ISSN: 0923-0750
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To improve the storage stability of instable vegetable oils with a high content of polyunsatd. fatty acid triglycerides, these essential compds. can be complexed with native cyclodextrins. Only with γ-CD a nearly complete complexation of the oils was achieved as shown by complexation kinetics measurements. Storage trials of the insol. Cd-complexes followed by the determination of the peroxide value of the oils indicated that the best stabilization against autoxidn. is obtained with γ-CD. An addnl. benefit of the complexation of triglycerides of polyunsatd. fatty acids with .gamma.-cyclodextrin is the formation of stable dispersions of these oils in aqueous media.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> fil stng

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	46.96	47.17

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-9.36	-9.36

FILE 'STNGUIDE' ENTERED AT 20:57:38 ON 07 FEB 2007

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb 2, 2007 (20070202/UP).

=> fil hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.12	47.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-9.36

FILE 'HCAPLUS' ENTERED AT 20:59:03 ON 07 FEB 2007

FILE COVERS 1907 - 7 Feb 2007 VOL 146 ISS 7
FILE LAST UPDATED: 6 Feb 2007 (20070206/ED)

10/712,703>07/02/2007

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l5 5 rn

L5 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
RN 60-33-3D
RN 1314-13-2
RN 1332-37-2
RN 7585-39-9
RN 9006-65-9D
RN 10016-20-3D
RN 12619-70-4
RN 13463-67-7
RN 14807-96-6
RN 17465-86-0
RN 31692-79-2
RN 111092-72-9
RN 153315-80-1
RN 60-33-3
RN 10016-20-3

=> E "1314-13-2"/BI,RN 25

E1	3		1314-12-1DP/BI
E2	42		1314-12-1P/BI
E3	87120	-->	1314-13-2/BI
E4	0		1314-13-2/RN
E5	964		1314-13-2D/BI
E6	186		1314-13-2DP/BI
E7	7080		1314-13-2P/BI
E8	978		1314-15-4/BI
E9	17		1314-15-4D/BI
E10	93		1314-15-4P/BI
E11	339		1314-18-7/BI
E12	1		1314-18-7D/BI
E13	38		1314-18-7P/BI
E14	7149		1314-20-1/BI
E15	258		1314-20-1D/BI
E16	42		1314-20-1DP/BI
E17	695		1314-20-1P/BI
E18	536		1314-22-3/BI
E19	4		1314-22-3D/BI
E20	44		1314-22-3P/BI
E21	95729		1314-23-4/BI
E22	2458		1314-23-4D/BI
E23	372		1314-23-4DP/BI
E24	9017		1314-23-4P/BI
E25	219		1314-24-5/BI

=> S E3 OR E5 OR E6 OR E7

	87120	1314-13-2/BI
	964	1314-13-2D/BI
	186	1314-13-2DP/BI
	7080	1314-13-2P/BI
L6	87120	1314-13-2/BI OR 1314-13-2D/BI OR 1314-13-2DP/BI OR 1314-13-2P/BI

=> E "6-33-3"/BI,RN 25

E1	1		5ZZNZTITFE2/BI
E2	3844305		6/BI
E3	0	-->	6-33-3/BI

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E4            0      6-33-3/RN
E5      1207883      60/BI
E6        30875      60-00-4/BI
E7         3937      60-00-4D/BI
E8          583      60-00-4DP/BI
E9         1266      60-00-4P/BI
E10           1      60-01-4/BI
E11        1188      60-01-5/BI
E12           8      60-01-5D/BI
E13          29      60-01-5P/BI
E14         366      60-02-6/BI
E15           2      60-02-6P/BI
E16           1      60-06-0/BI
E17           1      60-06-0P/BI
E18           2      60-08-2/BI
E19           2      60-08-2P/BI
E20        1809      60-09-3/BI
E21         122      60-09-3D/BI
E22          51      60-09-3DP/BI
E23         145      60-09-3P/BI
E24        1911      60-10-6/BI
E25         234      60-10-6D/BI

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E1          392      60-32-2P/BI
E2            1      60-32-8/BI
E3        37426 --> 60-33-3/BI
E4            0      60-33-3/RN
E5         1559      60-33-3D/BI
E6          227      60-33-3DP/BI
E7         1275      60-33-3P/BI
E8         3618      60-34-4/BI
E9           85      60-34-4D/BI
E10          28      60-34-4DP/BI
E11         115      60-34-4P/BI
E12        6427      60-35-5/BI
E13         307      60-35-5D/BI
E14          94      60-35-5DP/BI
E15         483      60-35-5P/BI
E16          10      60-37-7/BI
E17          10      60-37-7P/BI
E18         308      60-38-8/BI
E19           1      60-38-8D/BI
E20          17      60-38-8P/BI
E21          28      60-39-9/BI
E22           1      60-39-9D/BI
E23           4      60-39-9P/BI
E24         772      60-40-2/BI
E25           7      60-40-2D/BI

=> S E3 OR E5 OR E6 OR E7
          37426 60-33-3/BI
           1559 60-33-3D/BI
            227 60-33-3DP/BI
           1275 60-33-3P/BI
L7        37426 60-33-3/BI OR 60-33-3D/BI OR 60-33-3DP/BI OR 60-33-3P/BI

=> E "1332-37-2"/BI,RN 25
E1          821      1332-29-2P/BI
E2           13      1332-30-5/BI
E3        21742 --> 1332-37-2/BI
E4            0      1332-37-2/RN
E5          308      1332-37-2D/BI
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E6           56     1332-37-2DP/BI
E7         2118     1332-37-2P/BI
E8         1772     1332-40-7/BI
E9           52     1332-40-7D/BI
E10          43     1332-40-7P/BI
E11           5     1332-53-2/BI
E12           1     1332-53-2D/BI
E13          13     1332-57-6/BI
E14           1     1332-58-7/BI
E15           1     1332-59-8/BI
E16          62     1332-62-3/BI
E17           8     1332-62-3P/BI
E18           1     1332-63-4/BI
E19           1     1332-63-4P/BI
E20         146     1332-64-5/BI
E21           1     1332-64-5D/BI
E22          19     1332-64-5P/BI
E23         282     1332-65-6/BI
E24           7     1332-65-6D/BI
E25           2     1332-65-6DP/BI

=> S E3 OR E5 OR E6 OR E7
          21742 1332-37-2/BI
            308 1332-37-2D/BI
             56 1332-37-2DP/BI
           2118 1332-37-2P/BI
L8        21742 1332-37-2/BI OR 1332-37-2D/BI OR 1332-37-2DP/BI OR 1332-37-2P/BI

=> E "7585-39-9"/BI,RN 25
E1            3     7585-37-7/BI
E2            1     7585-37-7P/BI
E3        15147 --> 7585-39-9/BI
E4            0     7585-39-9/RN
E5         5819     7585-39-9D/BI
E6         1032     7585-39-9DP/BI
E7         1311     7585-39-9P/BI
E8          142     7585-41-3/BI
E9            1     7585-41-3D/BI
E10           1     7585-41-3DP/BI
E11           8     7585-41-3P/BI
E12          45     7585-47-9/BI
E13           1     7585-47-9D/BI
E14          20     7585-47-9P/BI
E15          22     7585-48-0/BI
E16           9     7585-48-0P/BI
E17           2     7585-49-1/BI
E18           1     7585-49-1P/BI
E19           1     7585-50-4/BI
E20           1     7585-52-6/BI
E21           1     7585-52-6P/BI
E22           1     7585-55-9/BI
E23           1     7585-55-9P/BI
E24           1     7585-56-0/BI
E25           1     7585-56-0P/BI

=> S E3 OR E5 OR E6 OR E7
          15147 7585-39-9/BI
           5819 7585-39-9D/BI
           1032 7585-39-9DP/BI
           1311 7585-39-9P/BI
L9        15147 7585-39-9/BI OR 7585-39-9D/BI OR 7585-39-9DP/BI OR 7585-39-9P/BI

=> E "9006-65-9"/BI,RN 25
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```
E1            6     9006-55-7/BI
E2            1     9006-59-1/BI
E3         1771 --> 9006-65-9/BI
E4            0     9006-65-9/RN
E5          218     9006-65-9D/BI
E6            4     9006-65-9DP/BI
E7            8     9006-65-9P/BI
E8            1     9006-66-0/BI
E9            1     9006-66-0P/BI
E10          51     9006-67-1/BI
E11           3     9006-67-1D/BI
E12           2     9006-67-1DP/BI
E13          27     9006-67-1P/BI
E14           1     9006-69-3/BI
E15           2     9006-70-6/BI
E16          45     9006-72-8/BI
E17          15     9006-72-8D/BI
E18           8     9006-72-8DP/BI
E19          20     9006-72-8P/BI
E20           9     9006-73-9/BI
E21          16     9006-75-1/BI
E22           1     9006-75-1D/BI
E23           1     9006-75-1P/BI
E24           1     9006-84-2/BI
E25           9     9006-86-4/BI

=> S E3 OR E5 OR E6 OR E7
          1771 9006-65-9/BI
           218 9006-65-9D/BI
             4 9006-65-9DP/BI
             8 9006-65-9P/BI
L10       1771 9006-65-9/BI OR 9006-65-9D/BI OR 9006-65-9DP/BI OR 9006-65-9P/BI

=> E "10016-20-3"/BI,RN 25
E1            1     10016-19-0/BI
E2            1     10016-19-0P/BI
E3         5210 --> 10016-20-3/BI
E4            0     10016-20-3/RN
E5         1118     10016-20-3D/BI
E6          279     10016-20-3DP/BI
E7          453     10016-20-3P/BI
E8           10     10016-26-9/BI
E9            1     10016-26-9P/BI
E10         203     10016-32-7/BI
E11          41     10016-32-7D/BI
E12          11     10016-32-7DP/BI
E13          52     10016-32-7P/BI
E14           5     10016-36-1/BI
E15           2     10016-36-1P/BI
E16           1     10016-41-8/BI
E17           1     10016-41-8P/BI
E18           2     10016-42-9/BI
E19           2     10016-42-9P/BI
E20          45     10016-52-1/BI
E21          18     10016-52-1P/BI
E22           1     10016-56-5/BI
E23           1     10016-57-6/BI
E24           3     10016-59-8/BI
E25           3     10016-59-8P/BI

=> S E3 OR E5 OR E6 OR E7
          5210 10016-20-3/BI
          1118 10016-20-3D/BI
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           279 10016-20-3DP/BI
           453 10016-20-3P/BI
L11       5211 10016-20-3/BI OR 10016-20-3D/BI OR 10016-20-3DP/BI OR 10016-20-3P/BI

=> E "12619-70-4"/BI,RN 25
E1           1     12619-68-0DP/BI
E2          25     12619-68-0P/BI
E3        5609 --> 12619-70-4/BI
E4           0     12619-70-4/RN
E5        1505     12619-70-4D/BI
E6         244     12619-70-4DP/BI
E7         527     12619-70-4P/BI
E8          64     12619-71-5/BI
E9          10     12619-71-5D/BI
E10          4     12619-71-5DP/BI
E11          7     12619-71-5P/BI
E12          9     12619-72-6/BI
E13          3     12619-72-6P/BI
E14          1     12619-74-8/BI
E15         10     12619-75-9/BI
E16          7     12619-76-0/BI
E17          2     12619-77-1/BI
E18          7     12619-78-2/BI
E19          5     12619-80-6/BI
E20          1     12619-81-7/BI
E21          1     12619-82-8/BI
E22          3     12619-83-9/BI
E23          1     12619-84-0/BI
E24          3     12619-85-1/BI
E25        100     12619-86-2/BI

=> S E3 OR E5 OR E6 OR E7
          5609 12619-70-4/BI
          1505 12619-70-4D/BI
           244 12619-70-4DP/BI
           527 12619-70-4P/BI
L12       5609 12619-70-4/BI OR 12619-70-4D/BI OR 12619-70-4DP/BI OR 12619-70-4P/BI

=> E "13463-67-7"/BI,RN 25
E1           1     13463-65-5/BI
E2           1     13463-65-5P/BI
E3      161050 --> 13463-67-7/BI
E4           0     13463-67-7/RN
E5        2449     13463-67-7D/BI
E6         530     13463-67-7DP/BI
E7       16054     13463-67-7P/BI
E8          18     13463-71-3/BI
E9           1     13463-71-3D/BI
E10         12     13463-71-3P/BI
E11          1     13463-78-0/BI
E12          1     13463-79-1/BI
E13          1     13463-80-4/BI
E14          1     13463-84-8/BI
E15          1     13463-85-9/BI
E16          1     13463-87-1/BI
E17          1     13463-89-3/BI
E18          1     13463-90-6/BI
E19          1     13463-90-6P/BI
E20          6     13463-91-7/BI
E21          4     13463-91-7P/BI
E22         56     13463-94-0/BI
E23         25     13463-94-0P/BI
E24          4     13463-96-2/BI
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E25           4      13463-96-2P/BI

=> S E3 OR E5 OR E6 OR E7
         161050 13463-67-7/BI
           2449 13463-67-7D/BI
            530 13463-67-7DP/BI
          16054 13463-67-7P/BI
L13      161050 13463-67-7/BI OR 13463-67-7D/BI OR 13463-67-7DP/BI OR 13463-67-7P/BI

=> E "14807-96-6"/BI,RN 25
E1            1      14807-82-0P/BI
E2            2      14807-84-2/BI
E3        27802 --> 14807-96-6/BI
E4            0      14807-96-6/RN
E5          137      14807-96-6D/BI
E6           45      14807-96-6DP/BI
E7          783      14807-96-6P/BI
E8            2      14807-97-7/BI
E9            1      148070-00-2/BI
E10           1      148070-00-2P/BI
E11           1      148070-01-3/BI
E12           1      148070-01-3P/BI
E13           1      148070-02-4/BI
E14           1      148070-02-4P/BI
E15           1      148070-03-5/BI
E16           1      148070-03-5P/BI
E17           1      148070-04-6/BI
E18           1      148070-04-6P/BI
E19           1      148070-05-7/BI
E20           1      148070-05-7P/BI
E21           1      148070-06-8/BI
E22           1      148070-06-8P/BI
E23           1      148070-07-9/BI
E24           1      148070-07-9P/BI
E25           1      148070-08-0/BI

=> S E3 OR E5 OR E6 OR E7
          27802 14807-96-6/BI
            137 14807-96-6D/BI
             45 14807-96-6DP/BI
            783 14807-96-6P/BI
L14       27802 14807-96-6/BI OR 14807-96-6D/BI OR 14807-96-6DP/BI OR 14807-96-6P/BI

=> E "17465-86-0"/BI,RN 25
E1            1      17465-74-6/BI
E2            1      17465-74-6P/BI
E3         4128 --> 17465-86-0/BI
E4            0      17465-86-0/RN
E5         1019      17465-86-0D/BI
E6          228      17465-86-0DP/BI
E7          395      17465-86-0P/BI
E8            7      17465-87-1/BI
E9            5      17465-87-1P/BI
E10           1      17465-88-2/BI
E11           1      17465-88-2P/BI
E12           1      17465-91-7/BI
E13           1      17465-91-7P/BI
E14           1      17465-92-8/BI
E15           1      17465-92-8P/BI
E16           1      17465-93-9/BI
E17           1      17465-93-9P/BI
E18           2      17465-94-0/BI
E19           2      17465-94-0P/BI
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E20           3      17465-95-1/BI
E21           3      17465-95-1P/BI
E22           1      17465-96-2/BI
E23           1      17465-96-2P/BI
E24           1      17465-97-3/BI
E25           1      17465-97-3P/BI

=> S E3 OR E5 OR E6 OR E7
          4128 17465-86-0/BI
          1019 17465-86-0D/BI
           228 17465-86-0DP/BI
           395 17465-86-0P/BI
L15       4128 17465-86-0/BI OR 17465-86-0D/BI OR 17465-86-0DP/BI OR 17465-86-0P/BI

=> E "31692-79-2"/BI,RN 25
E1            1      31692-72-5P/BI
E2            1      31692-75-8/BI
E3         1553 --> 31692-79-2/BI
E4            0      31692-79-2/RN
E5          266      31692-79-2D/BI
E6          192      31692-79-2DP/BI
E7          279      31692-79-2P/BI
E8            2      31692-81-6/BI
E9          247      31692-85-0/BI
E10           1      31692-85-0D/BI
E11           3      31692-85-0P/BI
E12          11      31692-86-1/BI
E13           1      31692-86-1D/BI
E14           1      31692-86-1P/BI
E15           1      31692-87-2/BI
E16           1      31692-88-3/BI
E17           2      31692-89-4/BI
E18           1      31692-90-7/BI
E19           1      31692-92-9/BI
E20           1      31692-92-9P/BI
E21          11      31692-93-0/BI
E22           2      31692-93-0P/BI
E23           1      316920-00-0/BI
E24           1      316920-01-1/BI
E25           1      316920-02-2/BI

=> S E3 OR E5 OR E6 OR E7
          1553 31692-79-2/BI
           266 31692-79-2D/BI
           192 31692-79-2DP/BI
           279 31692-79-2P/BI
L16       1553 31692-79-2/BI OR 31692-79-2D/BI OR 31692-79-2DP/BI OR 31692-79-2P/BI

=> E "111092-72-9"/BI,RN 25
E1            1      111092-69-4/BI
E2            2      111092-71-8/BI
E3            7 --> 111092-72-9/BI
E4            0      111092-72-9/RN
E5            2      111092-73-0/BI
E6            2      111092-73-0D/BI
E7            1      111092-74-1/BI
E8            1      111092-75-2/BI
E9            1      111092-76-3/BI
E10           1      111092-77-4/BI
E11           1      111092-78-5/BI
E12           1      111092-79-6/BI
E13           2      111092-80-9/BI
E14           2      111092-81-0/BI
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E15           1     111092-82-1/BI
E16           1     111092-83-2/BI
E17           1     111092-84-3/BI
E18           1     111092-85-4/BI
E19           1     111092-86-5/BI
E20           1     111092-87-6/BI
E21           1     111092-88-7/BI
E22           1     111092-89-8/BI
E23           1     111092-90-1/BI
E24           1     111092-91-2/BI
E25           1     111092-92-3/BI

=> S E3
L17           7 111092-72-9/BI

=> E "153315-80-1"/BI,RN 25
E1            2     153315-79-8/BI
E2            2     153315-79-8P/BI
E3         1411 --> 153315-80-1/BI
E4            0     153315-80-1/RN
E5           77     153315-80-1D/BI
E6           59     153315-80-1DP/BI
E7          606     153315-80-1P/BI
E8          378     153315-81-2/BI
E9           15     153315-81-2D/BI
E10          13     153315-81-2DP/BI
E11          58     153315-81-2P/BI
E12           2     153315-82-3/BI
E13           1     153315-82-3P/BI
E14           1     153315-83-4/BI
E15           1     153315-84-5/BI
E16           1     153315-85-6/BI
E17           1     153315-86-7/BI
E18           1     153315-87-8/BI
E19           1     153315-88-9/BI
E20           1     153315-89-0/BI
E21           1     153315-89-0P/BI
E22           1     153315-90-3/BI
E23           1     153315-90-3P/BI
E24           1     153315-91-4/BI
E25           1     153315-92-5/BI

=> S E3 OR E5 OR E6 OR E7
           1411 153315-80-1/BI
             77 153315-80-1D/BI
             59 153315-80-1DP/BI
            606 153315-80-1P/BI
L18        1411 153315-80-1/BI OR 153315-80-1D/BI OR 153315-80-1DP/BI OR 153315-80-1P/BI

=> E "10016-20-3"/BI,RN 25
E1            1     10016-19-0/BI
E2            1     10016-19-0P/BI
E3         5210 --> 10016-20-3/BI
E4            0     10016-20-3/RN
E5         1118     10016-20-3D/BI
E6          279     10016-20-3DP/BI
E7          453     10016-20-3P/BI
E8           10     10016-26-9/BI
E9            1     10016-26-9P/BI
E10         203     10016-32-7/BI
E11          41     10016-32-7D/BI
E12          11     10016-32-7DP/BI
E13          52     10016-32-7P/BI
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E14           5      10016-36-1/BI
E15           2      10016-36-1P/BI
E16           1      10016-41-8/BI
E17           1      10016-41-8P/BI
E18           2      10016-42-9/BI
E19           2      10016-42-9P/BI
E20          45      10016-52-1/BI
E21          18      10016-52-1P/BI
E22           1      10016-56-5/BI
E23           1      10016-57-6/BI
E24           3      10016-59-8/BI
E25           3      10016-59-8P/BI

=> S E3 OR E5 OR E6 OR E7
          5210 10016-20-3/BI
          1118 10016-20-3D/BI
           279 10016-20-3DP/BI
           453 10016-20-3P/BI
L19       5211 10016-20-3/BI OR 10016-20-3D/BI OR 10016-20-3DP/BI OR 10016-20-3P/BI

=> d his

     (FILE 'HOME' ENTERED AT 20:54:10 ON 07 FEB 2007)

     FILE 'HCAPLUS' ENTERED AT 20:54:39 ON 07 FEB 2007
                E US2003-712703/PN 25
                E REGIERT M/AU 25
L1            20 S (E3 OR E4)
                E KUPKA M/AU 25
L2            39 S (E3 OR E4 OR E9 OR E10)
                E CYCLODEXTRIN+ALL/CT
L3        312049 S (CYCLODEXTRIN OR "CHEMICAL COMPOUNDS" OR "ORGANIC COMPOUNDS"
L4            56 S L1-L2
L5            12 S L4 AND L3

     FILE 'STNGUIDE' ENTERED AT 20:57:38 ON 07 FEB 2007

     FILE 'HCAPLUS' ENTERED AT 20:59:03 ON 07 FEB 2007
                E "1314-13-2"/BI,RN 25
L6         87120 S E3 OR E5 OR E6 OR E7
                E "6-33-3"/BI,RN 25
                E "60-33-3"/BI,RN 25
L7         37426 S E3 OR E5 OR E6 OR E7
                E "1332-37-2"/BI,RN 25
L8         21742 S E3 OR E5 OR E6 OR E7
                E "7585-39-9"/BI,RN 25
L9         15147 S E3 OR E5 OR E6 OR E7
                E "9006-65-9"/BI,RN 25
L10         1771 S E3 OR E5 OR E6 OR E7
                E "10016-20-3"/BI,RN 25
L11         5211 S E3 OR E5 OR E6 OR E7
                E "12619-70-4"/BI,RN 25
L12         5609 S E3 OR E5 OR E6 OR E7
                E "13463-67-7"/BI,RN 25
L13       161050 S E3 OR E5 OR E6 OR E7
                E "14807-96-6"/BI,RN 25
L14        27802 S E3 OR E5 OR E6 OR E7
                E "17465-86-0"/BI,RN 25
L15         4128 S E3 OR E5 OR E6 OR E7
                E "31692-79-2"/BI,RN 25
L16         1553 S E3 OR E5 OR E6 OR E7
                E "111092-72-9"/BI,RN 25
L17            7 S E3
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                E "153315-80-1"/BI,RN 25
L18         1411 S E3 OR E5 OR E6 OR E7
                E "10016-20-3"/BI,RN 25
L19         5211 S E3 OR E5 OR E6 OR E7

=> s l6-l19
L20      331859 (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR L15
               OR L16 OR L17 OR L18 OR L19)

=> s l20 and l5
L21          10 L20 AND L5

=> d ti 1-10

L21  ANSWER 1 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Solvent-free dispersions of 1:1 or 2:1 cyclodextrin-perfume
     complexes

L21  ANSWER 2 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Stabilizing linoleic acid by complexation with α-
     cyclodextrin

L21  ANSWER 3 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Light stability of vitamin E by encapsulation in .gamma.-
     cyclodextrin

L21  ANSWER 4 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cosmetic composition comprising a complex of cyclodextrin and
     vitamin F

L21  ANSWER 5 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cyclodextrins: an other tool for encapsulation

L21  ANSWER 6 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Procedure for the complexation of retinol with cyclodextrins

L21  ANSWER 7 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Stabilization of retinol with .gamma.-cyclodextrin

L21  ANSWER 8 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Complexes of .gamma.-cyclodextrin and retinol or
     retinol derivatives, their manufacture and use

L21  ANSWER 9 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Stabilization and dispersion of plant oils containing polyunsaturated
     fatty acid residues by complexation with .gamma.-
     cyclodextrin

L21  ANSWER 10 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Application of .gamma.-cyclodextrin for the
     stabilization and/or dispersion of vegetable oils containing triglycerides
     of polyunsaturated acids


=> d l21 4 ibib abs hitstr

L21  ANSWER 4 OF 10  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2004:402912  HCAPLUS
DOCUMENT NUMBER:          140:412001
TITLE:                    Cosmetic composition comprising a complex of
                          cyclodextrin and vitamin F
INVENTOR(S):              Regiert, Marlies; Kupka, Michaela
PATENT ASSIGNEE(S):       Wacker-Chemie GmbH, Germany
```

SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1419761	A1	20040519	EP 2003-26137	20031113
EP 1419761	B1	20051019		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
DE 10253042	A1	20040603	DE 2002-10253042	20021114
KR 2004042827	A	20040520	KR 2003-77579	20031104
US 2004096413	A1	20040520	US 2003-712703	20031112
JP 2004161775	A	20040610	JP 2003-385675	20031114

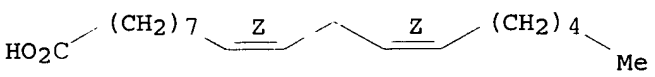
PRIORITY APPLN. INFO.: DE 2002-10253042 A 20021114

AB The invention concerns cosmetic and dermatol. compns. that contain complexes of vitamin F with α, β, or . gamma.-cyclodextrin. Addnl. substances in the formulations are: silicone oils, moisturizers, skin care substances, gelation agents, bactericides, antioxidants, sunscreens, emulsifiers, pigments, tanning agents, etc. Thus 0.1 mol α- cyclodextrin was mixed with 100 g water; 0.1 mol linolic acid was added, homogenized and stirred for 30 h at RT and for 8 h at 70°C; the product was dispersed in water, filtered, washed and dried under vacuum. A composition contained (weight/weight%):α-cyclodextrin-linolic acid complex 4.0; .gamma.-cyclodextrin-α-tocopherol complex 1.5; octyl palmitate 2.5; octyl stearate 3.5; polyglycerol-2 sesquiisostearate 2.0; cyclomethicone, dimethiconol 3.0; lauryl dimethicone 2.0; octyl dimethicone ethoxy glycoside, cyclomethicone 12.0; titanium dioxide 5.0; polymethylsilsesquioxane 1.0; zinc oxide 2.0; glycerin 2.0; methylparaben 0.1; sodium chloride 0.4; water 59.0.

IT 60-33-3D, Linolic acid, complex with α- cyclodextrin
1314-13-2, Zinc oxide, biological studies 1332-37-2, Iron oxide, biological studies 7585-39-9, β-Cyclodextrin 9006-65-9D, Dimethicone, lauryl derivs. 10016-20-3D, α- Cyclodextrin, complex with linolic acid 12619-70-4, Cyclodextrin 13463-67-7, Titanium dioxide, biological studies 14807-96-6, Talc, biological studies 17465-86-0, γ - Cyclodextrin 31692-79-2, Dimethiconol 111092-72-9 153315-80-1
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(cosmetic composition comprising a complex of cyclodextrin and vitamin F)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



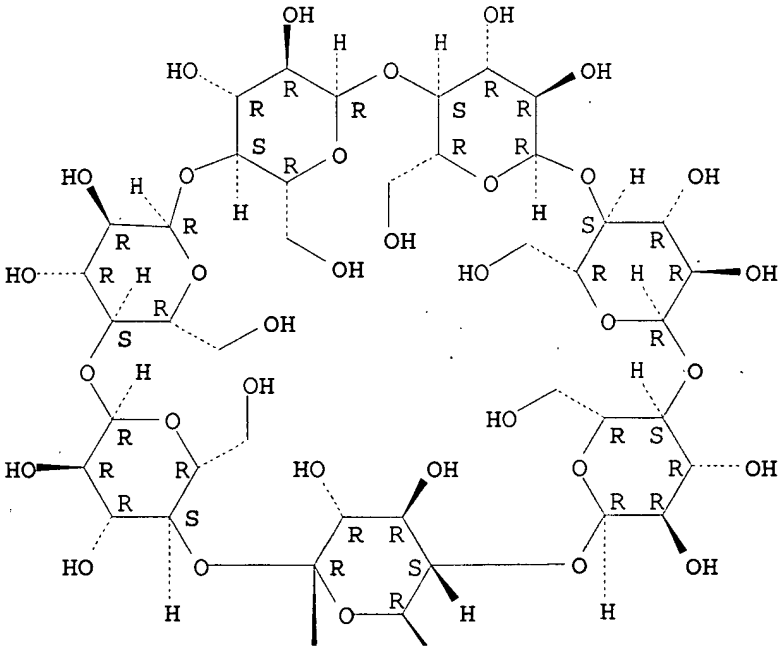
RN 1314-13-2 HCAPLUS
CN Zinc oxide (ZnO) (9CI) (CA INDEX NAME)

RN 1332-37-2 HCAPLUS
CN Iron oxide (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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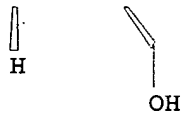
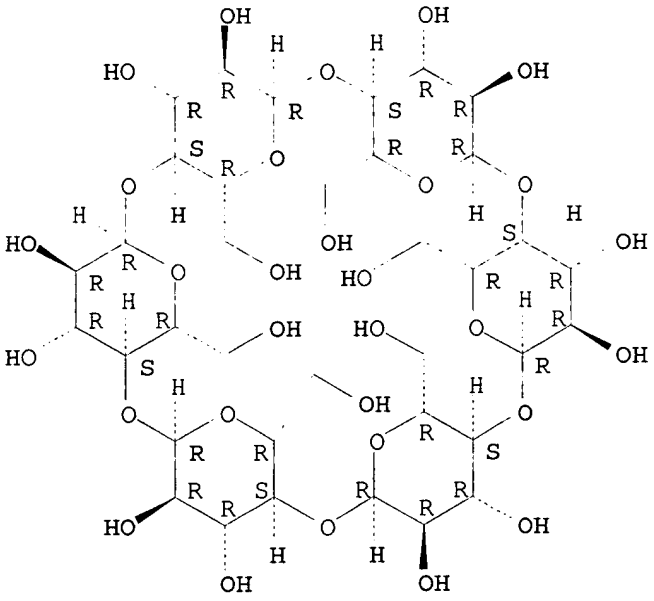


RN 9006-65-9 HCAPLUS
CN Dimethicone (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

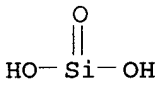
Absolute stereochemistry.



RN 12619-70-4 HCAPLUS
CN Cyclodextrin (9CI) (CA INDEX NAME)

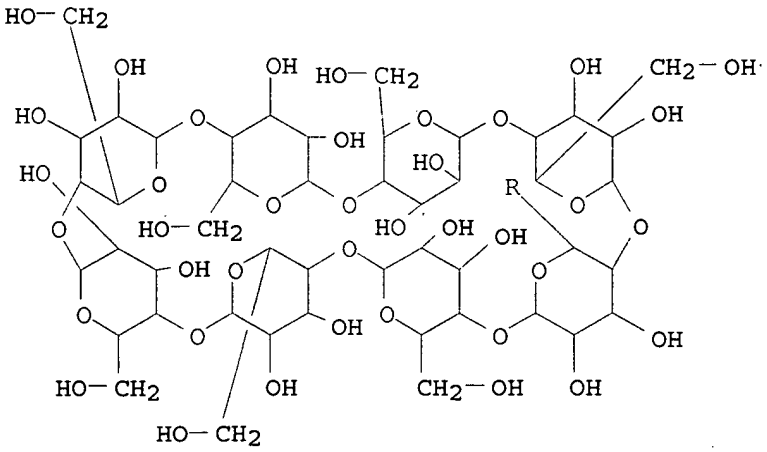
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)

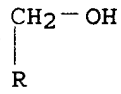
RN 14807-96-6 HCAPLUS
CN Talc (Mg3H2(SiO3)4) (9CI) (CA INDEX NAME)



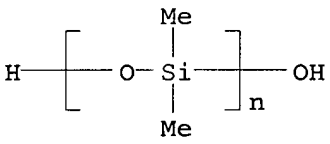
●3/4 Mg

RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)





RN 31692-79-2 HCAPLUS
CN Poly[oxy(dimethylsilylene)], α-hydro-ω-hydroxy- (8CI, 9CI) (CA INDEX NAME)



RN 111092-72-9 HCAPLUS
CN 1,2,3-Propanetriol, homopolymer, isooctadecanoate (2:3) (9CI) (CA INDEX NAME)

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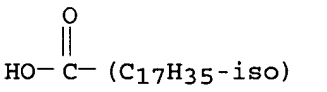
CRN 30399-84-9
CMF C18 H36 O2
CCI IDS

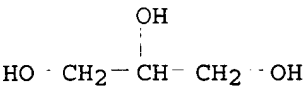


CM 2

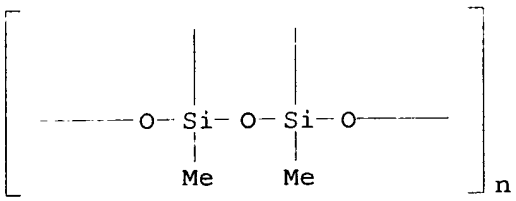
CRN 25618-55-7
CMF (C3 H8 O3)x
CCI PMS

CM 3

CRN 56-81-5
CMF C3 H8 O3

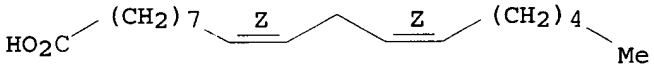


RN 153315-80-1 HCAPLUS
CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediylidene)-1,3-bis(oxy)] (9CI) (CA INDEX NAME)



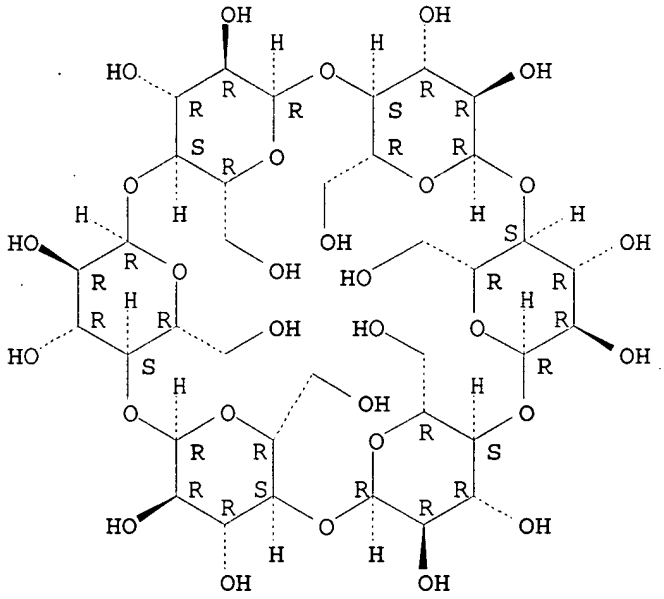
IT 60-33-3, Linolic acid, biological studies 10016-20-3, α- Cyclodextrin
RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)
(cosmetic composition comprising a complex of cyclodextrin and vitamin F)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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                                                       ENTRY    SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -0.78     -10.14

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb  2, 2007 (20070202/UP).

=> d his

     (FILE 'HOME' ENTERED AT 20:54:10 ON 07 FEB 2007)

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               E REGIERT M/AU 25
L1          20 S (E3 OR E4)
               E KUPKA M/AU 25
L2          39 S (E3 OR E4 OR E9 OR E10)
               E CYCLODEXTRIN+ALL/CT
L3      312049 S (CYCLODEXTRIN OR "CHEMICAL COMPOUNDS" OR "ORGANIC COMPOUNDS"
L4          56 S L1-L2
L5          12 S L4 AND L3

     FILE 'STNGUIDE' ENTERED AT 20:57:38 ON 07 FEB 2007

     FILE 'HCAPLUS' ENTERED AT 20:59:03 ON 07 FEB 2007
               E "1314-13-2"/BI,RN 25
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L6         87120 S E3 OR E5 OR E6 OR E7
                 E "6-33-3"/BI,RN 25
                 E "60-33-3"/BI,RN 25
L7         37426 S E3 OR E5 OR E6 OR E7
                 E "1332-37-2"/BI,RN 25
L8         21742 S E3 OR E5 OR E6 OR E7
                 E "7585-39-9"/BI,RN 25
L9         15147 S E3 OR E5 OR E6 OR E7
                 E "9006-65-9"/BI,RN 25
L10         1771 S E3 OR E5 OR E6 OR E7
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L11         5211 S E3 OR E5 OR E6 OR E7
                 E "12619-70-4"/BI,RN 25
L12         5609 S E3 OR E5 OR E6 OR E7
                 E "13463-67-7"/BI,RN 25
L13       161050 S E3 OR E5 OR E6 OR E7
                 E "14807-96-6"/BI,RN 25
L14        27802 S E3 OR E5 OR E6 OR E7
                 E "17465-86-0"/BI,RN 25
L15         4128 S E3 OR E5 OR E6 OR E7
                 E "31692-79-2"/BI,RN 25
L16         1553 S E3 OR E5 OR E6 OR E7
                 E "111092-72-9"/BI,RN 25
L17            7 S E3
                 E "153315-80-1"/BI,RN 25
L18         1411 S E3 OR E5 OR E6 OR E7
                 E "10016-20-3"/BI,RN 25
L19         5211 S E3 OR E5 OR E6 OR E7
L20       331859 S L6-L19
L21           10 S L20 AND L5

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                    0.00     -10.14

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb  2, 2007 (20070202/UP).

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FULL ESTIMATED COST                                    0.36      87.98

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                    0.00     -10.14

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FILE COVERS 1907 - 7 Feb 2007 VOL 146 ISS 7
FILE LAST UPDATED: 6 Feb 2007 (20070206/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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L22 17303 L9 OR L11 OR L15

=> s l7 or l17 or l18
L23 38840 L7 OR L17 OR L18

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22869364 1800<=PY<=2002
L25 40 L24 AND 1800<=PY<=2002

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L25 ANSWER 1 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:554493 HCAPLUS
DOCUMENT NUMBER: 140:258803
TITLE: Quality study of volatile oil enclosed with β-cyclodextrin in Naokangling capsule
AUTHOR(S): Wang, Yan; Zhou, Liling; Liu, Qingfei; Qiu, Meixian; Liang, Shuyan
CORPORATE SOURCE: Guangzhou University of TCM, Canton, 510405, Peop. Rep. China
SOURCE: Guangzhou Zhongyiyao Daxue Xuebao (2002), 19(4), 311-313
CODEN: GZDXFQ; ISSN: 1007-3213
PUBLISHER: Guangzhou Zhongyiyao Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Study the quality of volatile oil enclosed with β-cyclodextrin (β-CD) in Naokangling capsule. The quality of the volatile oil in Naokangling capsule before and after enclosure was examined by thin layer chromatog., UV and gas chromatog.-mass spectrometry. The inclusion of volatile oil and β-cyclodextrin was steady, and the quality of volatile oil was not changed before and after enclosure. The process of enclosure with β-CD can keep the active components of the volatile oil in Naokangling capsule.
IT 60-33-3, Linoleic acid, biological studies
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(quality study of volatile oil enclosed with cyclodextrin in Naokangling capsule)

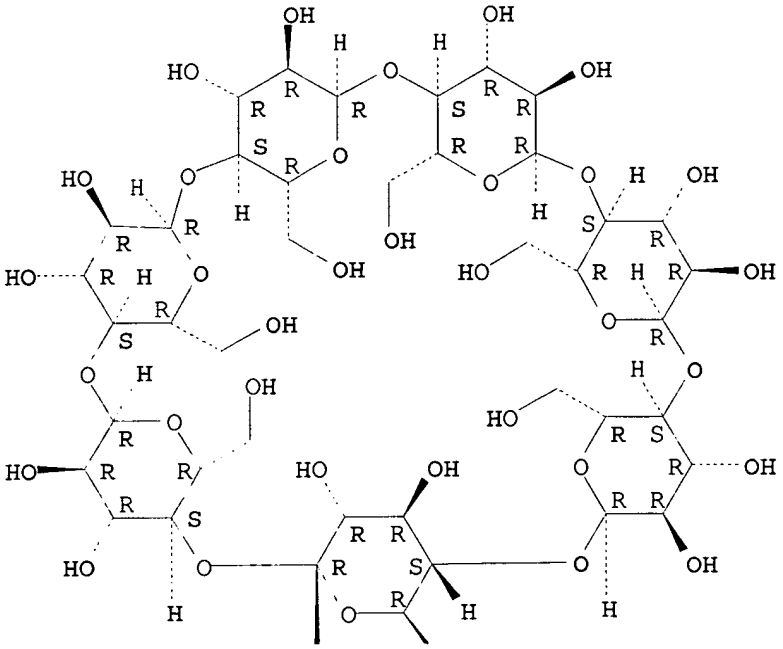
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

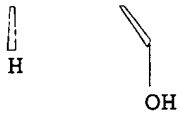
IT 7585-39-9, β-Cyclodextrin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(quality study of volatile oil enclosed with cyclodextrin in Naokangling capsule)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



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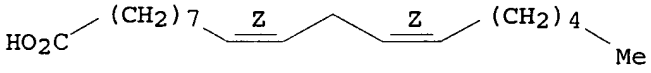
L25 ANSWER 2 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:869813 HCAPLUS
DOCUMENT NUMBER: 138:88882

TITLE: Pasting property differences of commercial and isolated rice starch with added lipids and β-cyclodextrin
AUTHOR(S): Liang, Xiaoming; King, Joan M.; Shih, Fred F.
CORPORATE SOURCE: Department of Food Science, Louisiana State University Agricultural Center, Baton Rouge, LA, 70803, USA
SOURCE: Cereal Chemistry (2002), 79(6), 812-818
CODEN: CECHAF; ISSN: 0009-0352
PUBLISHER: American Association of Cereal Chemists
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lipids are known to generally affect starch properties but the effects of lipid structure and β-cyclodextrin (β-CD) on different starches has not been investigated. This study compared the effects of lipids and β-CD on pasting properties of isolated rice starch with com. rice starch. Flour was defatted by Soxhlet extraction and deproteinated by alkaline protease digestion. Fatty acids, monopalmitin (MP), tripalmitin, lysophosphatidylcholine (LC), lysophophatidylethanolamine (LE), each added at 0.2 and 0.6% (starch db), and β-CD added at 2 and 6% (starch db) were tested. Pasting temperature (PT) increased with added phospholipid, particularly in the com. starch, while all lipids except tripalmitin increased final viscosity (FV) and total setback (TSB). Breakdown (BKD) was mainly affected and increased by up to 39 RVU for fatty acids while decreasing by up to 80 RVU for other lipids in both starches. TSB doubled by the addition of 0.6% MP but decreased to one-third by 0.6% LE or LC. Addition of β-CD decreased min. viscosity (MV) and FV while increasing BKD in the isolate but decreased TSB in com. starch.
IT 60-33-3, Linoleic acid, biological studies 7585-39-9, β-Cyclodextrin
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process)
(pasting property differences of com. and isolated rice starch with added lipids and β-cyclodextrin)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

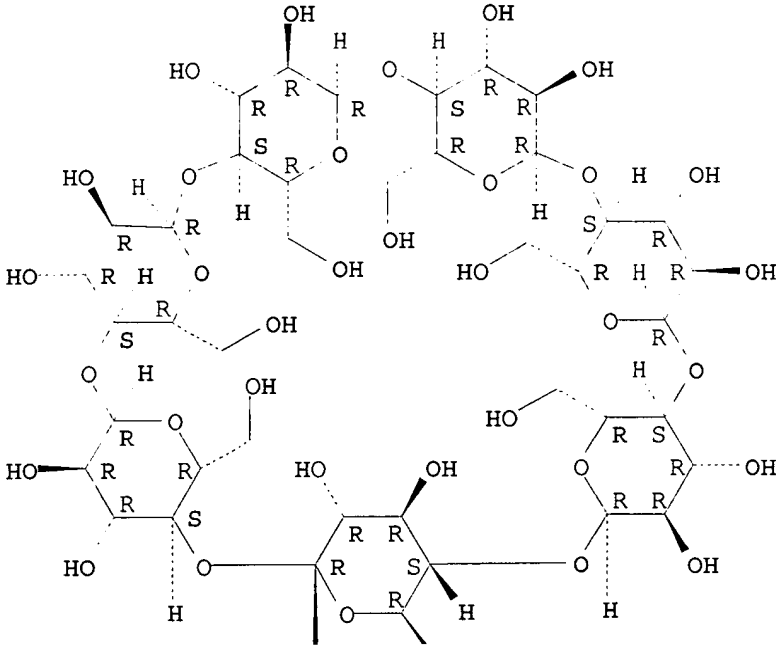
Double bond geometry as shown.



RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

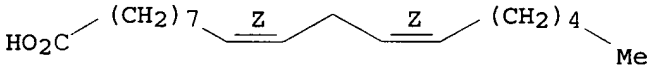
L25 ANSWER 3 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:846052 HCAPLUS
DOCUMENT NUMBER: 138:69780
TITLE: Increased Staphylococcus-killing activity of an antimicrobial peptide, lactoferricin B, with minocycline and monoacylglycerol
AUTHOR(S): Wakabayashi, Hiroyuki; Teraguchi, Susumu; Tamura, Yoshitaka
CORPORATE SOURCE: Nutritional Science Laboratory, Morinaga Milk Industry Co., Ltd., Kanagawa, 228-8583, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (2002), 66(10), 2161-2167
CODEN: BBBIEJ; ISSN: 0916-8451
PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study aimed to find antibiotics or other compds. that could increase the antimicrobial activity of an antimicrobial peptide, lactoferricin B (LFcin B), against Staphylococcus aureus, including antibiotic-resistant strains. Among conventional antibiotics, minocycline increased the bactericidal activity of LFcin B against S. aureus, but methicillin, ceftizoxime, and sulfamethoxazole-trimethoprim did not have such an

effect. The combination of minocycline and LFcin B had synergistic effects against three antibiotic-resistant strains of S. aureus, according to result of checkerboard anal. Screening of 33 compds., including acids and salts, alcs., amino acids, proteins and peptides, sugar, and lipids, showed that medium-chain monoacyl-glycerols increased the bactericidal activity of LFcin B against three S. aureus strains. The short-term killing test in water and the killing curve test in growing cultures showed that a combination of LFcin B and monolaurin (a monoacylglycerol with a 12-carbon acyl chain) killed S. aureus more rapidly than either agent alone. These findings may be helpful in the application of antimicrobial peptides in medical or other situations.

IT 60-33-3, Linoleic acid, biological studies 7585-39-9, β-Cyclodextrin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antimicrobial peptide lactoferricin B combined with antibiotics or chemical compds. activity against Staphylococcus aureus)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

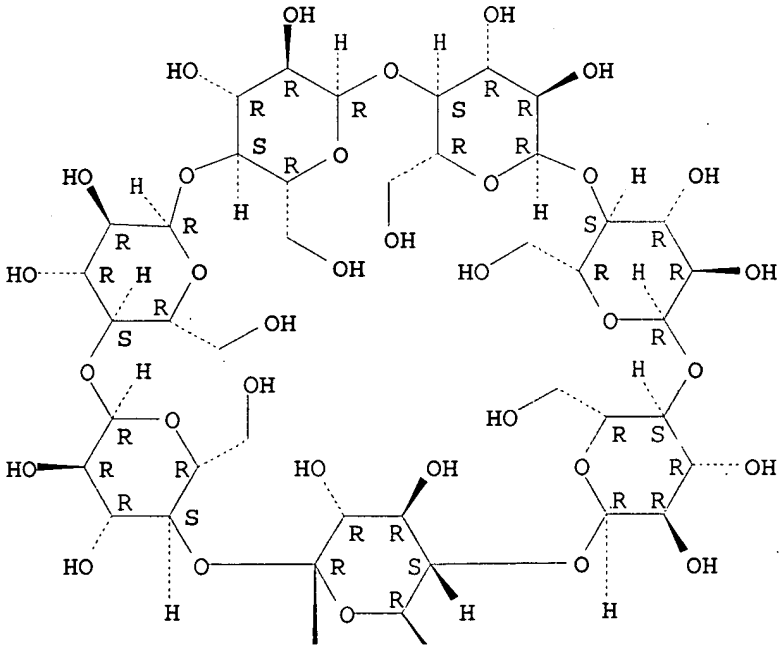
Double bond geometry as shown.

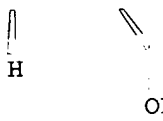


RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 4 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:695819 HCAPLUS
DOCUMENT NUMBER: 137:222086
TITLE: Compositions comprising an o/w emulsion containing conjugated linoleic acid
INVENTOR(S): Remmereit, Jan; Klaveness, Jo
PATENT ASSIGNEE(S): Natural Asa, Norway; Cockbain, Julian
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002070014	A1	20020912	WO 2002-GB996	20020307 <--
WO 2002070014	A8	20031127		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2455226	A1	20020912	CA 2002-2455226	20020307 <--
EP 1372728	A1	20040102	EP 2002-704908	20020307
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004077724	A1	20040422	US 2003-471049	20031222

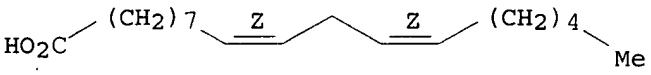
PRIORITY APPLN. INFO.:
GB 2001-5622 A 20010307
WO 2002-GB996 W 20020307

AB The present invention provides a method of treatment of a human or non-human (e.g. mammalian, avian or reptilian) animal subject by the parenteral administration of a lipophilic pharmaceutical agent, the improvement comprising administering said pharmaceutical agent in an oil-in-water emulsion containing a conjugated linoleic acid (CLA) or a physiol. tolerable derivative thereof. A mixture of 10 g CLA triglyceride (produced by reacting CLA with glycerol), 1.0 g purified egg phospholipid, 50 mg sodium stearate and 5 g α-tocopherol was finely dispersed. A mixture of 100 mL water containing 2.5 g glycerol and 0.05 mmol NaOH was added to the CLA mixture during stirring at room temperature The mixture was homogenized in a high pressure homogenator and the final emulsion filled into vials and heat-sterilized.

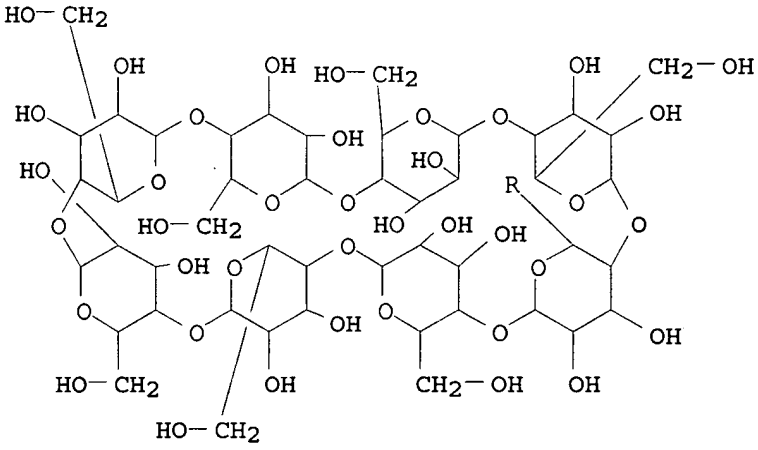
IT 60-33-3D, Linoleic acid, conjugates 17465-86-0, γ-Cyclodextrin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. comprising o/w emulsion containing conjugated linoleic acid)

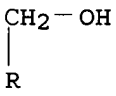
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)





REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 5 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:551533 HCAPLUS
DOCUMENT NUMBER: 137:114518
TITLE: Skin sanitizing compositions
INVENTOR(S): Sine, Mark Richard; Wei, Karl Shiqing; Jakubovic, David Andrew; Thomas, Cheyne P.; Dodd, Michael Thomas; Putman, Christopher Dean
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: U.S., 14 pp., Cont. of U.S. Ser. No. 321,291.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6423329	B1	20020723	US 2000-504286		20000215 <--
PRIORITY APPLN. INFO.:			US 1999-249717	A2	19990212
			US 1999-120098P	P	19990216
			US 1999-321291	A2	19990527

AB The present invention relates to compns. and methods of sanitizing and moisturizing skin surfaces. A sanitizing and moisturizing gel contained EtOH 55, isopropanol 3, Biowax-754 0.4, Carbopol Ultrez-10 0.3,Carbowax

PEG-200 0.26, propylene glycol 0.02, aminomethylpropanol 0.15, and perfume 0.1%, and water qs.

IT 60-33-3D, 9,12-Octadecadienoic acid (9Z,12Z)-, lanolin esters 7585-39-9, β-Cyclodextrin 7585-39-9D, β-Cyclodextrin, alkyl ethers 10016-20-3, α-Cyclodextrin 10016-20-3D, α-Cyclodextrin, alkyl ethers
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(skin sanitizing compns.)

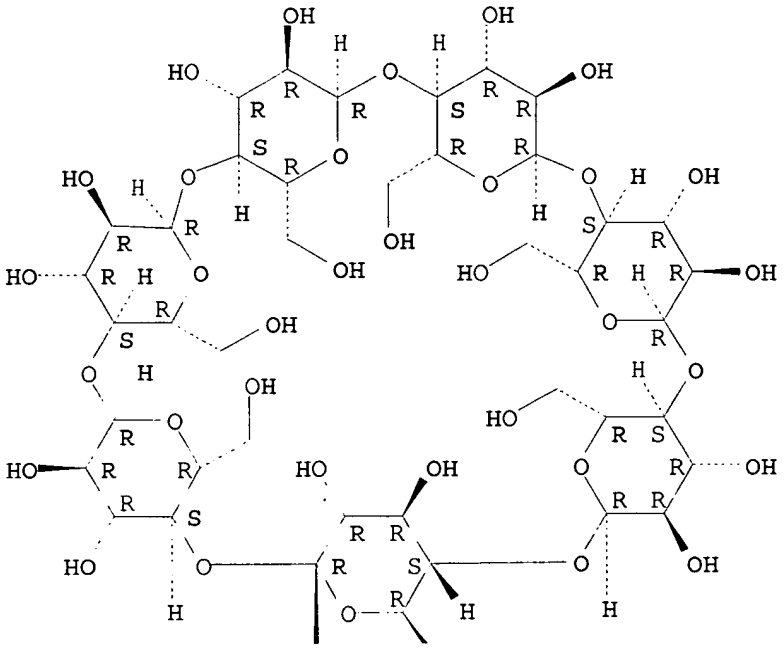
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



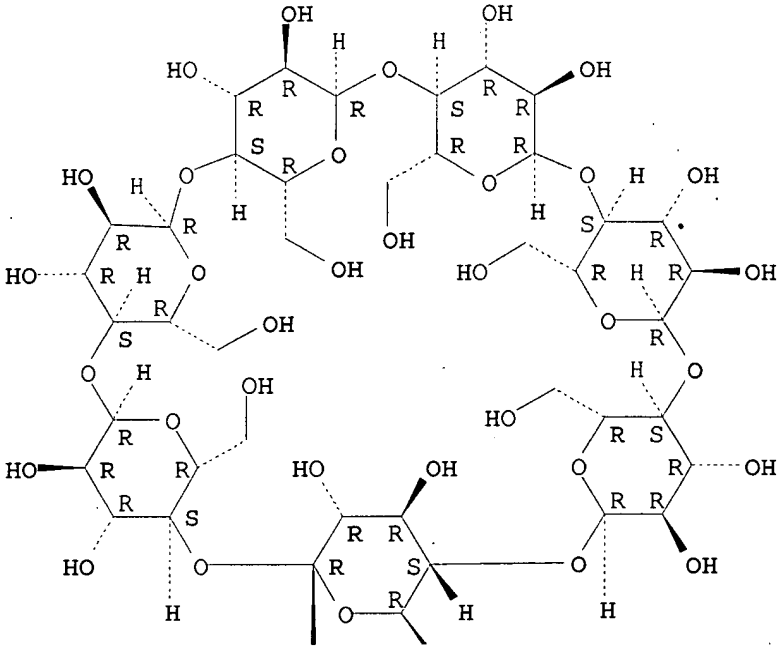
PAGE 2-A

RN 7585-39-9 HCAPLUS

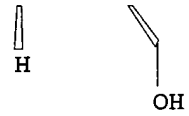
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

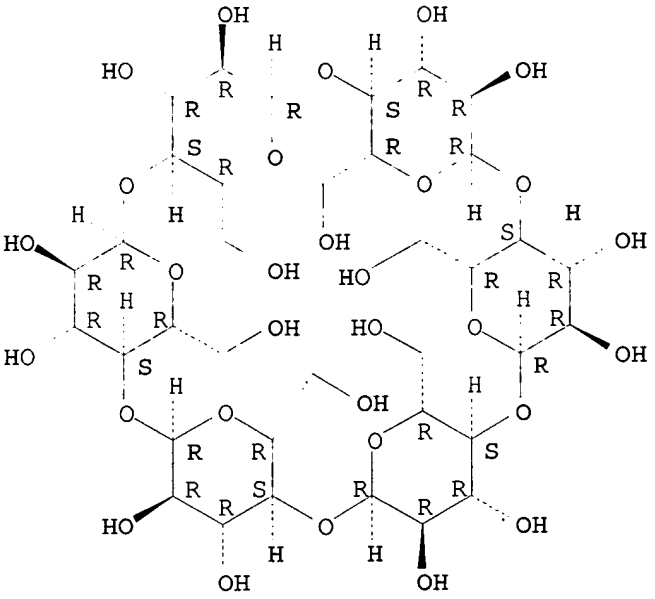


PAGE 2-A



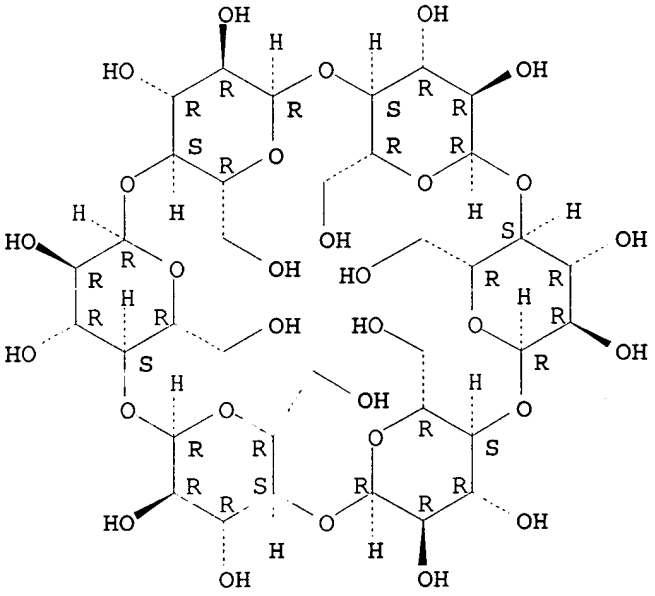
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l25 ibib abs hitstr 6-40

L25 ANSWER 6 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:369910 HCAPLUS
DOCUMENT NUMBER: 137:190835
TITLE: Separation and first structure elucidation of cremophor EL-components by hyphenated capillary electrophoresis and delayed extraction-matrix assisted

laser desorption/ionization-time of flight-mass spectrometry

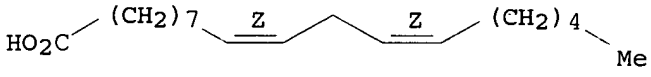
AUTHOR(S): Meyer, Thomas; Waidelich, Dietmar; Frahm, August Wilhelm
CORPORATE SOURCE: Albert-Ludwigs-University, Freiburg im Breisgau, D-79104, Germany

SOURCE: Electrophoresis (2002), 23(7-8), 1053-1062
CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

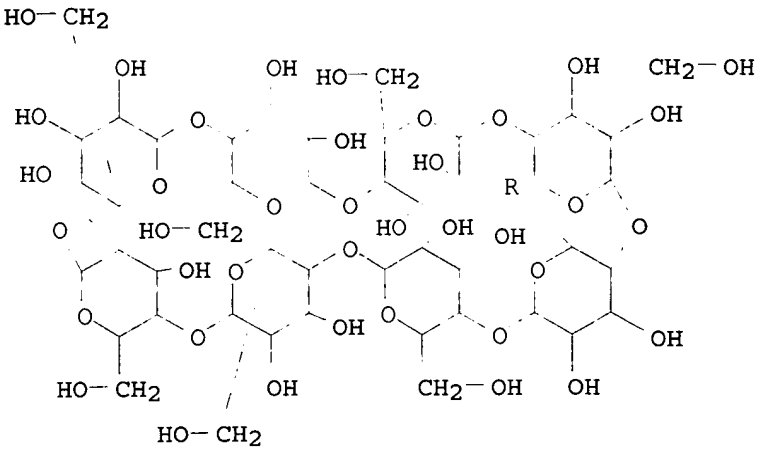
AB The polyethoxylated heterogeneous components of the so far poorly characterized nonionic emulsifier Cremophor EL (polyoxyl 35 castor oil) (CrEL) were fractionated by cyclodextrin-modified micellar electrokinetic capillary chromatog. (CD-MEKC). Due to the low UV absorbance of most of the CrEL-components an indirect UV detection was used with phenobarbital-sodium as background absorber. For a precise assignment of the resulting peaks to the corresponding components capillary electrophoresis (CE) had to be combined with delayed extraction-matrix assisted laser desorption/ionization-time of flight-mass spectrometry (DE-MALDI-TOF-MS) as detection system. For this purpose, the fractionating robot Probot was employed which enables both the online fractionation of the CE eluate on a MALDI target during the electrophoretic separation and the simultaneous dosage of the MALDI matrix solution The applied CrEL amount was optimized by varying the CE injection parameters time, pressure and concentration of the sample in order to obtain homolog peak series of sufficient intensity without decreasing the separation efficiency. Evaluation of the mass spectra was performed by comparing the residue masses of the homolog peak series with the calculated residue masses of potential CrEL-components. However, the high number of polyethoxylated components leads to overlapping of homolog peak series with isobaric residue masses. These isobaric interferences were detected by a high mass accuracy of the measurements (obtained by internal calibration with polyethylene glycol (PEG) 1000) and by means of the residue mass plot, the newly developed evaluation method. The combination of these techniques allowed the first detailed structure anal. of the CrEL-components showing glycerol polyoxyethylene (POE) monoricinoleate and POE monoricinoleate to be the two main components of the emulsifier. Furthermore, the coupling of CE with DE-MALDI-TOF-MS is generally applicable to the fractionation and identification of polymers.

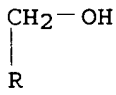
IT 60-33-3, Linoleic acid, analysis
RL: ANT (Analyte); ANST (Analytical study)
(separation and first structure elucidation of cremophor EL-components by hyphenated capillary electrophoresis and delayed extraction-matrix assisted laser desorption/ionization-time of flight-mass spectrometry)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 17465-86-0, γ-Cyclodextrin
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(separation and first structure elucidation of cremophor EL-components by hyphenated capillary electrophoresis and delayed extraction-matrix assisted laser desorption/ionization-time of flight-mass spectrometry)
RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)





REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 7 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:368286 HCAPLUS
DOCUMENT NUMBER: 136:374550
TITLE: A skin cream composition containing chitosan conjugates
INVENTOR(S): Wadstein, Jan
PATENT ASSIGNEE(S): Wadlund AS, Norway
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038123	A1	20020516	WO 2001-NO437	20011101 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
NO 310176	B1	20010605	NO 2000-5718	20001113 <--
AU 2002016473	A5	20020521	AU 2002-16473	20011101 <--
EP 1341517	A1	20030910	EP 2001-993455	20011101
EP 1341517	B1	20060906		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 338533	T	20060915	AT 2001-993455	20011101
US 2004043963	A1	20040304	US 2003-416671	20030922

PRIORITY APPLN. INFO.: NO 2000-5718 A 20001113

WO 2001-NO437 W 20011101

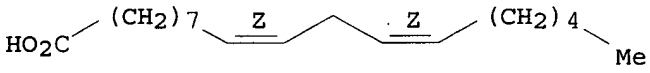
AB The present invention is related to compns. containing chitosan conjugated CLA (conjugated linoleic acid) and a chitosan conjugated Vitamin A or a β-cyclodextrin conjugated vitamin A. The invention also concerns the preparation of the compns. The compns. according to the invention can be used as topical and cosmetic compns. as well as pharmaceutical compns. for treatment of atypical dermatitis, psoriasis eczema as well as eczema of different origins and solar dermatitis.

IT 60-33-3D, Linoleic acid, conjugates with chitosan
7585-39-9D, β-Cyclodextrin, conjugates with vitamin A
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(skin cream composition containing chitosan conjugates)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

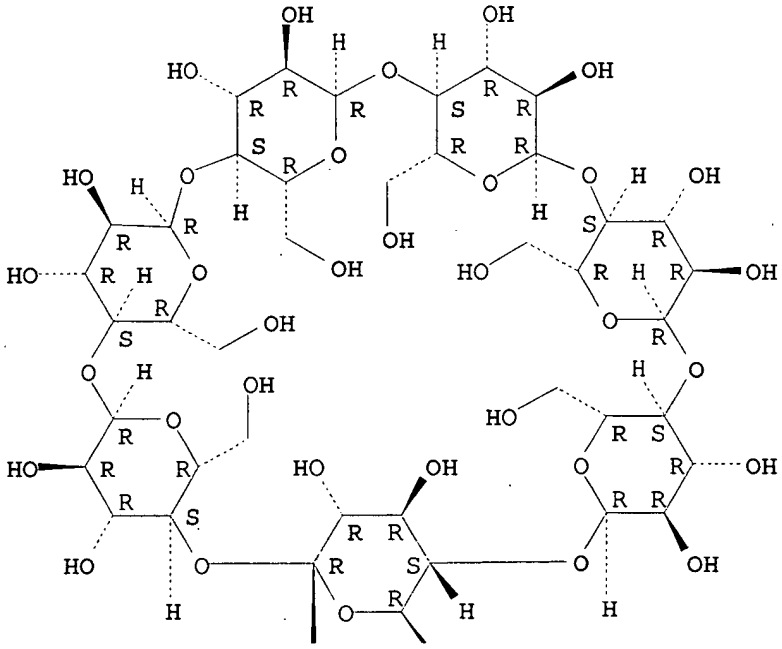


RN 7585-39-9 HCAPLUS

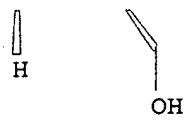
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

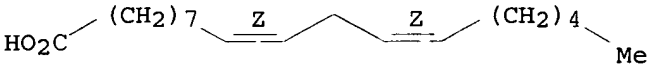
L25 ANSWER 8 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:72541 HCAPLUS
DOCUMENT NUMBER: 136:182662
TITLE: Improved Amperometric Method for the Rapid and Quantitative Measurement of Lipoxygenase Activity in Vegetable Tissue Crude Homogenates
AUTHOR(S): Reyes-De-Corcuera, Jose I.; Cavalieri, Ralph P.; Powers, Joseph R.
CORPORATE SOURCE: Department of Biological Systems Engineering, Washington State University, Pullman, WA, 99164-6120, USA
SOURCE: Journal of Agricultural and Food Chemistry (2002), 50(5), 997-1001
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An improved amperometric method for rapid (2 min) quant. determination of lipoxygenase (LOX) activity in vegetable tissue crude homogenates is presented. Measured LOX activity was linear (R2 > 0.99) throughout the entire activity range for green bean and for corn below 70% activity. The resolution was 0.4% or 1.11 μmol L-1 s-1 of oxygen. The limit of detection was 3.43 μmol L-1 s-1 of oxygen. The amperometric method was improved by encapsulating linoleic acid (LA) in β-cyclodextrin (CD) resulting in a stable substrate-buffer solution at a pH below 8.0. Ethanol and Tween 20 were not effective in solubilizing high LA concns. required by the assay. A prototype benchtop instrument with the potential for use in an industrial environment is also presented.

IT 60-33-3, Linoleic acid, uses 7585-39-9, β-Cyclodextrin
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(lipoxygenase activity in vegetable tissue crude homogenates determined by amperometry with encapsulating linoleic acid in β-cyclodextrin)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

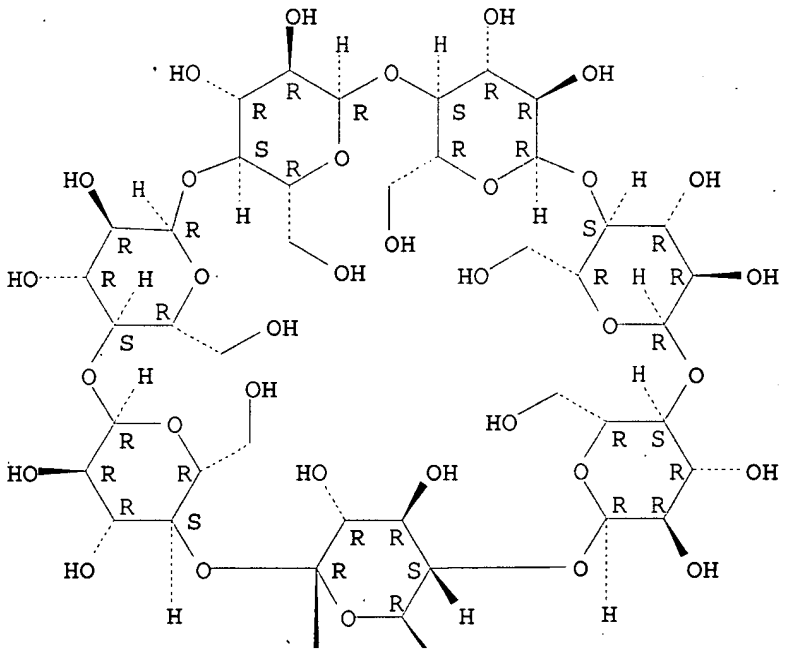
Double bond geometry as shown.



RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 9 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:584837 HCAPLUS
DOCUMENT NUMBER: 136:221495
TITLE: The effect of a new skin ointment on skin thickness and elasticity
AUTHOR(S): Thom, E.; Gudmundsen, O.; Wadstein, J.
CORPORATE SOURCE: Parexel Norway AS, Lillestrom, Norway
SOURCE: Journal of Applied Cosmetology (2001), 19(2), 51-57
CODEN: JACOEL; ISSN: 0392-8543
PUBLISHER: International Ediemme
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The present open pilot study was carried out in order to investigate a new patented concept for skin treatment. The new concept is intended for use in treatment of ageing skin. The ointment contains conjugated linoleic acid (CLA) and retinyl palmitate (RP). Both ingredients are conjugated with the biopolymer chitosan in order to improve water solubility, increase skin penetration and inhibit oxidation of the active substances. A number of studies have previously been carried out with conjugated retinyl palmitate, where the conjugation mostly has been done using β-cyclodextrin. We included 20 females in our study and the treatment period was three months. Objective measurements of

skin-thickness and elasticity were carried out initially and after three months. Subjective observations and scores were performed by the participants themselves using visual analog scales (VASs) initially and at the end of the study. The results showed a significant improvement in skin quality both with regard to objective as well as in subjective parameters after treatment with the new ointment. In comparison to our previous studies with ointments containing only conjugated RP the effects on skin thickness and elasticity were more pronounced with the new formulation showing an average improvement in skin thickness of 51% and in skin elasticity of 27%. The self evaluation scores of the participants were also highly favorable and significant, and all of the participants would like to continue with the ointment after the formal study was closed. The tolerability of the treatment was excellent and all subjects concluded the study according to the protocol.

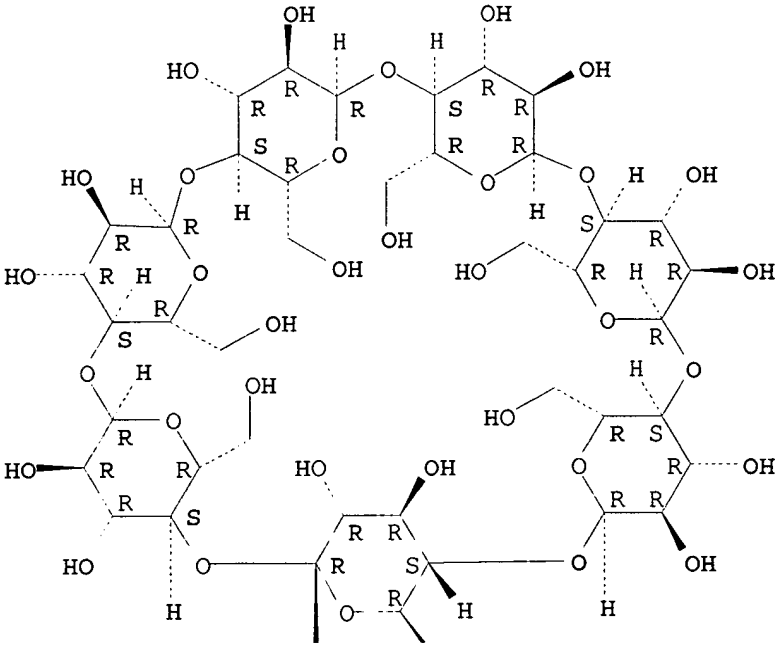
IT 7585-39-9, β-Cyclodextrin.
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(effect of new skin ointment on skin thickness and elasticity)

RN 7585-39-9 HCAPLUS

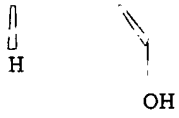
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



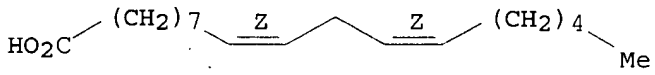
PAGE 2-A



IT 60-33-3DP, Linoleic acid, conjugates with chitosan
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(effect of new skin ointment on skin thickness and elasticity)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

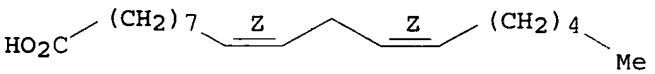
Double bond geometry as shown.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 10 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:223475 HCAPLUS
DOCUMENT NUMBER: 135:32774
TITLE: Optimisation of nutritional requirements and process control parameters for the production of HA-2-91, a new tetraene polyene antibiotic
AUTHOR(S): Gupte, T. E.; Naik, S. R.
CORPORATE SOURCE: Laboratory of Industrial Microbiology and Fermentation, Research and Development Centre, Hindustan Antibiotics Ltd., Pune, 411 018, India
SOURCE: Hindustan Antibiotics Bulletin (1998), 40(1-4), 5-13
CODEN: HINAAU; ISSN: 0018-1935
PUBLISHER: Hindustan Antibiotics, Ltd
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:32774
AB HA-2-91, a new tetraene polyene antibiotic produced during submerged fermentation of Streptomyces arenae var ukrainiana. Optimization of nutritional requirements and process control parameters were studied for higher productivity of HA-2-91 during fermentative production in shaken flasks using complex media. Exptl. findings indicate that jowar starch (Sorghum vulgare) is the best carbon source while corn steep liquor in combination with peanut meal are the best nitrogen sources. Exogenous addition of amino acids, divalent cations and fatty acids suppressed the productivity of HA-2-91. Incorporation of glucose into the production medium above 5% (w/v) results in inhibition of productivity of HA-2-91 which may be due to catabolite regulation. The concentration of phosphate ions above 10 ppm also showed similar suppression effect on the productivity of HA-2-91. However, ferrous ions at 100 ppm showed slight stimulatory effect on the production of HA-2-91. The optimum process control parameters for the production of HA-2-91 were found to be temperature, 28°C; inoculum concentration from seed to production medium, 1% (volume/volume); pH and volume of production medium 6.5 and 100 mL resp.; and fermentation cycle time, 120 h.
IT 60-33-3, Linoleic acid, biological studies
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(optimization of nutritional requirements and process control parameters for the production of HA-2-91, a new tetraene polyene antibiotic)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

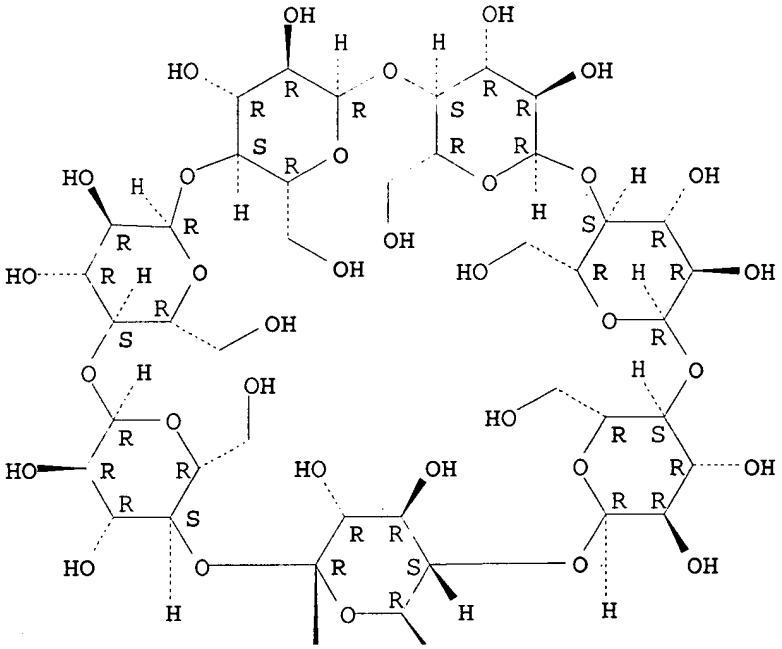
Double bond geometry as shown.



IT 7585-39-9, β-Dextrin
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(optimization of nutritional requirements and process control parameters for the production of HA-2-91, a new tetraene polyene antibiotic)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 11 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:136991 HCAPLUS
DOCUMENT NUMBER: 134:198075
TITLE: Triglyceride-free compositions and methods for enhanced absorption of hydrophilic therapeutic agents
INVENTOR(S): Patel, Mahesh V.; Chen, Feng-Jing
PATENT ASSIGNEE(S): Lipocine, Inc., USA
SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012155	A1	20010222	WO 2000-US18807	20000710 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6309663	B1	20011030	US 1999-375636	19990817 <--
CA 2380642	A1	20010222	CA 2000-2380642	20000710 <--
EP 1210063	A1	20020605	EP 2000-947184	20000710 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003506476	T	20030218	JP 2001-516502	20000710
NZ 517659	A	20041224	NZ 2000-517659	20000710
AU 780877	B2	20050421	AU 2000-60838	20000710
US 2001024658	A1	20010927	US 2000-751968	20001229 <--
US 6458383	B2	20021001		

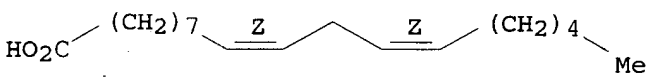
PRIORITY APPLN. INFO.:	US 1999-375636	A	19990817
	WO 2000-US18807	W	20000710

AB The present invention relates to triglyceride-free pharmaceutical compns., pharmaceutical systems, and methods for enhanced absorption of hydrophilic therapeutic agents. The compns. and systems include an absorption enhancing carrier, where the carrier is formed from a combination of at least two surfactants, at least one of which is hydrophilic. A hydrophilic therapeutic agent can be incorporated into the composition, or can be co-administered with the composition as part of a pharmaceutical system. The invention also provides methods of treatment with hydrophilic therapeutic agents using these compns. and systems. For example, when a composition containing Cremophor RH40 0.30, Arlacel 186 0.20, Na taurocholate 0.18, and propylene glycol 0.32 g, resp., was used, the relative absorption of PEG 4000 as a model macromol. drug was enhanced by 991%.

IT 60-33-3, Linoleic acid, biological studies 7585-39-9D, β-Cyclodextrin, ethers with propanediol
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. for enhanced absorption of hydrophilic drugs using combination of surfactants)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

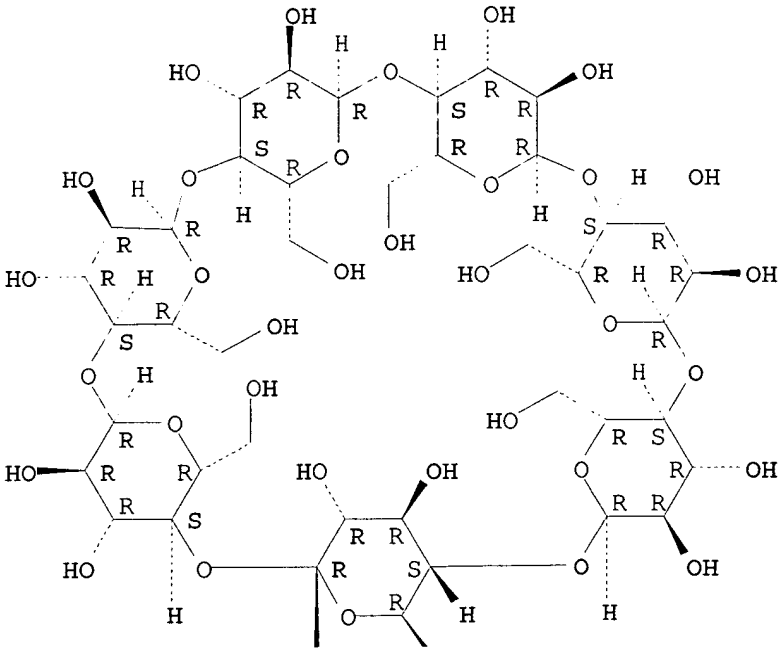
Double bond geometry as shown.



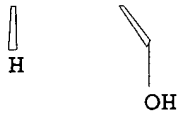
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



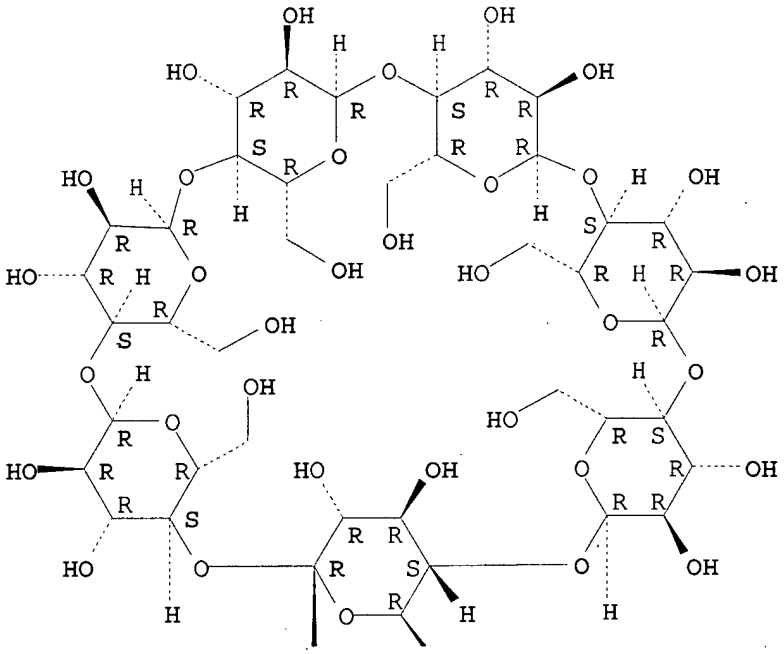
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:56548 HCAPLUS
DOCUMENT NUMBER: 132:194033
TITLE: Kinetic study of the oxidation of linoleic acid by lipoxygenase in presence of β-cyclodextrin
AUTHOR(S): Lopez-Nicolas, J. M.; Bru, R.; Lopez-Roca, J. M.; Garcia-Carmona, F.
CORPORATE SOURCE: E.T.S. Ingenieros Agronomos. Department of Food Technology, University of Murcia, Spain
SOURCE: Proceedings of the International Symposium on Cyclodextrins, 9th, Santiago de Comostela, Spain, May 31-June 3, 1998 (1999), Meeting Date 1998, 525-528. Editor(s): Labandeira, J. J. Torres; Vila-Jato, J. L. Kluwer Academic Publishers: Dordrecht, Neth.
CODEN: 68NHAE
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The oxidation of linoleic acid entrapped in β-CD by lipoxygenase was characterized and a model for enzyme catalysis in a CD medium is proposed.
IT 7585-39-9, β-Cyclodextrin
RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or

reagent); USES (Uses)
(inhibitor; kinetic study of oxidation of linoleic acid by lipoxygenase in presence of β-cyclodextrin)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

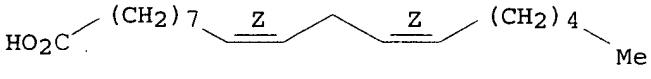
PAGE 1-A



PAGE 2-A

IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(kinetic study of oxidation of linoleic acid by lipoxygenase in presence of β-cyclodextrin)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

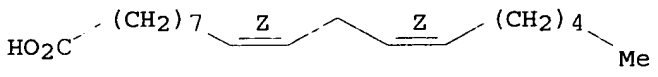
L25 ANSWER 13 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:790366 HCAPLUS
DOCUMENT NUMBER: 128:93107
TITLE: Percutaneous absorption and histopathology of a poloxamer-based formulation of capsaicin analog
AUTHOR(S): Lee, Beom-Jin; Lee, Tae-Sup; Cha, Bong-Jin; Kim, Soon-Hoe; Kim, Won-Bae
CORPORATE SOURCE: College of Pharmacy, Biological Rhythm and Controlled Release Laboratory, Kangwon National University, Chuncheon, 200-701, S. Korea
SOURCE: International Journal of Pharmaceutics (1997), 159(1), 105-114
CODEN: IJPHDE; ISSN: 0378-5173
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new synthetic capsaicin analog (CA) modified with 4-hydroxyl and alkyl chain of capsaicin was synthesized as a potent anti-inflammatory analgesic drug and is now on clin. trial in Korea. The purpose of this study was to investigate the percutaneous absorption and histopathol. of a poloxamer-based formulation of CA. A poloxamer-based gel was prepared by cold method using poloxamer 407. Vertical Franz type diffusion cells were used for skin penetration of drug against receptor phase filled with about 10 mL of 0.9 isotonic saline at 32°C. The concentration of drug was determined by the reverse phased HPLC (C18, Symmetry®) with fluorometeric detector. Total amount of CA free base permeated was higher than that of the CA salt form. Percutaneous absorption of CA was greatly enhanced in ethanol and PG than that in water, 2-hydroxypropy-β-cyclodextrin and PEG400. As ethanol concentration increased, percutaneous absorption greatly increased. The flux rate of CA increased slightly when PG was added to ethanol solution The marked enhancing effect of the 5 fatty acid IPM in cosolvents was also noted on the percutaneous absorption of a poloxamer-based formulation of CA. Addition of 5 OA and 5 LA into the gel containing 5 IPM resulted in a slight increase in skin permeation. No significant difference in skin permeation was observed as a function of poloxamer content (20, 25 and 30). The buffer system of 30 poloxamer-based gel slightly changed the cumulative amts. of CA penetrated for 24 h. The flux of poloxamer-based gels increased linearly as the drug concentration increased. There was a variation of percutaneous absorption of the drug, depending on the species used. The flux of a poloxamer-based formulation of CA was the highest in case of hairless mice but the lowest in hamsters. No skin erythema and histopathol. changes were observed on the dorsal site of hairless mice in six groups after a week or two months application, suggesting no skin toxicity of the poloxamer-based gel. Based on these findings, the current poloxamer-based formulation appears useful in the systemic delivery of CA as topical or transdermal patch formulations.

IT 60-33-3, Linoleic acid, biological studies 7585-39-9D, β-Cyclodextrin, 2-hydroxypropyl ether
RL: BPR (Biological process); BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(percutaneous absorption and histopathol. of a poloxamer-based formulation of capsaicin analog)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

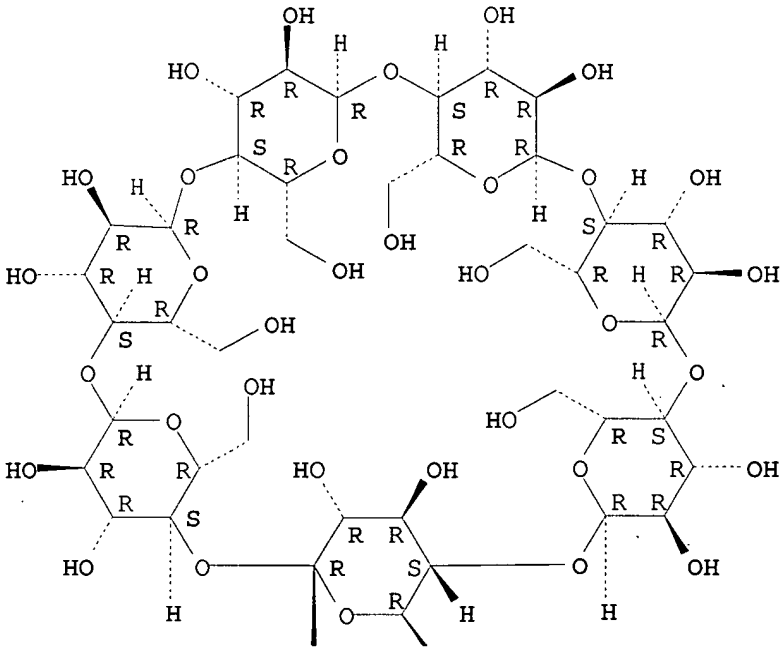
Double bond geometry as shown.



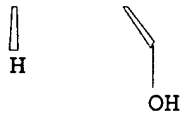
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:681639 HCAPLUS
DOCUMENT NUMBER: 127:358219
TITLE: Oxidative stability and nuclear magnetic resonance analyses of linoleic acid encapsulated in cyclodextrins
AUTHOR(S): Reichenbach, Wendy A.; Min, David B.
CORPORATE SOURCE: Department of Food Science, The Ohio State University, Columbus, OH, 43210, USA
SOURCE: Journal of the American Oil Chemists' Society (1997), 74(10), 1329-1333
CODEN: JAOCA7; ISSN: 0003-021X
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of α- and β-cyclodextrin (CD) on the oxidative stability of linoleic acid (LA) at 35°C were studied by measuring headspace oxygen depletion in airtight 35-mL serum bottles. LA was

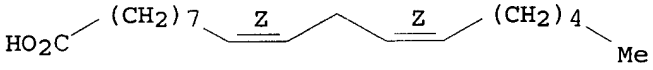
encapsulated in α-CD or β-CD in an aqueous solution during homogenization at 8000 rpm for 1 min and then dried under vacuum for 60 h at room temperature Headspace oxygen was measured by thermal conductivity gas chromatog. The rate of oxygen depletion for the control, which contained LA only, was 93.8 μmole/L·h. The rates of oxygen depletion for LA, encapsulated at a 1:1 mol ratio (mole CD/mol LA) in α-CD and β-CD, were 13.8 and 111 μmoles/L·h, resp. When LA was encapsulated in α-CD and β-CD at a 2:1 mol ratio (moles CD/mol LA), the rates of oxygen depletion were 0.573 and 53.9 μmoles/L·h, resp. Although α-CD protected LA from reaction with oxygen at both ratios, the rate of oxygen depletion by LA encapsulated in β-CD at a 1:1 mol ratio was not statistically different from the control. β-CD protected LA from reaction with oxygen at a 2:1 mol ratio. 1H NMR spectra of the complexes formed from 1:1 mol ratios of LA and CD indicated that LA was encapsulated in α-CD or β-CD.

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(oxidative stability and NMR analyses of linoleic acid encapsulated in cyclodextrins)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



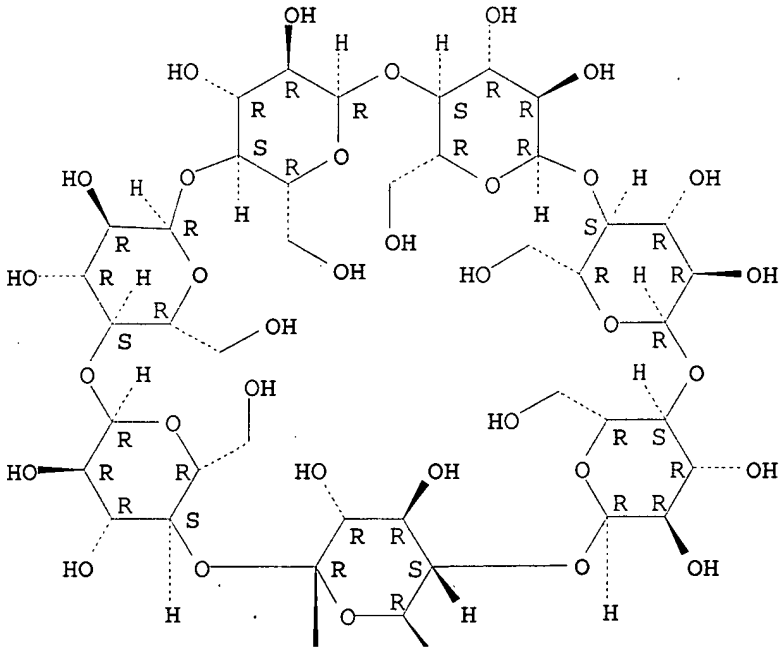
IT 7585-39-9, β-Cyclodextrin 10016-20-3, α-Cyclodextrin
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(oxidative stability and NMR analyses of linoleic acid encapsulated in cyclodextrins)

RN 7585-39-9 HCAPLUS

CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

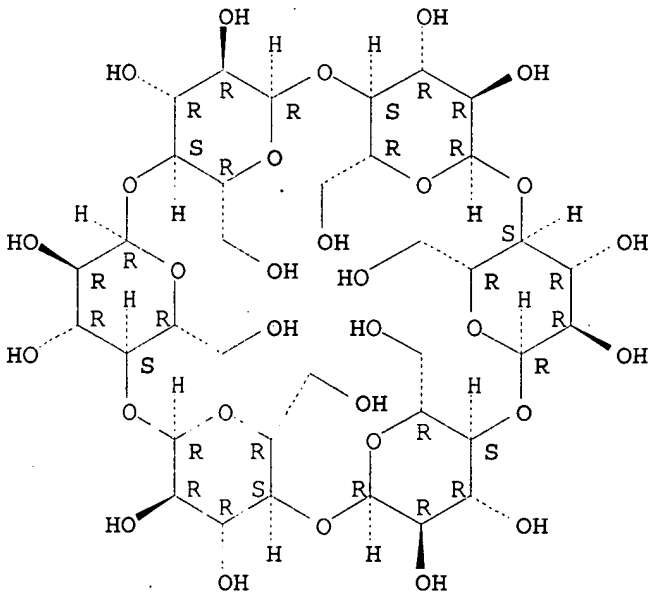
PAGE 1-A



PAGE 2-A

RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:547073 HCAPLUS
DOCUMENT NUMBER: 127:132573
TITLE: Potato (Solanum tuberosum var. Desiree) tuber 5-lipoxygenase selectivity for the physicochemical properties of linoleic acid
AUTHOR(S): Bru, Roque; Garcia-Carmona, Francisco
CORPORATE SOURCE: Departamento de Bioquimica y Biologia Molecular A. Facultad de Biologia, Universidad de Murcia, Murcia, E-30001, Spain
SOURCE: Journal of Agricultural and Food Chemistry (1997), 45(8), 2869-2875
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

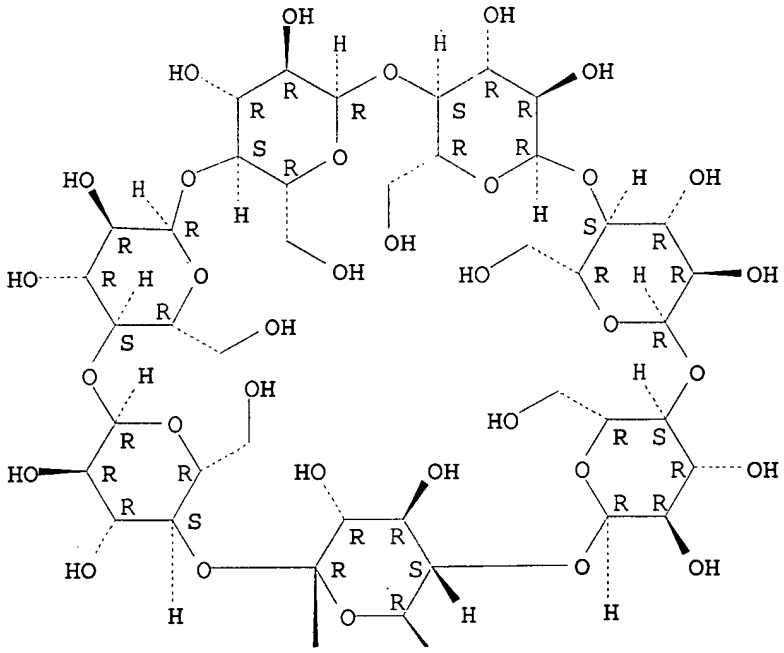
AB The dependence of potato 5-lipoxygenase (LOX) activity on the physicochem. properties of linoleic acid (LA) was studied. β-Cyclodextrin (β-CD) and pH were used as tools to investigate the effect of the physicochem. state of LA on LOX kinetic properties in vitro. The LA concentration dependence of LOX activity was best fitted by using the Hill equation. It was found that the decrease in LOX activity at high pH corresponded to a pKa lower than the pKa of LA; thus, such decrease was assigned to some ionizable side-chain group of LOX related to the active center. At a fixed LA concentration, the presence of β-CD led to a decrease in the LOX reaction rate, which was due to its effect on Km and the Hill constant since Vmax was not affected. Expts. in the presence of β-CD revealed that LA monomers were also used as substrate, although less efficiently than aggregates. The different activities exhibited against monomers and aggregates is the reason for the observed apparent substrate cooperativity, which can be interpreted as an aggregate-induced enzyme activation. The effect of β-CD on LOX activity could be explained on the basis of the specific interaction between LA and β-CD and the equations derived for such interaction developed in a previous work.

IT 7585-39-9, β-Cyclodextrin
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(dependence of potato tuber 5-lipoxygenase on physicochem. properties of linoleic acid: effect of β-cyclodextrin)

RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

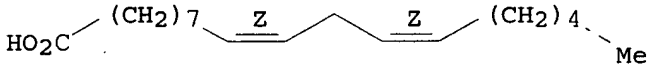
PAGE 1-A



PAGE 2-A

IT 60-33-3, Linoleic acid, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(dependence of potato tuber 5-lipoxygenase on physicochem. properties of linoleic acid: effect of β-cyclodextrin)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

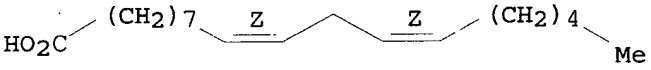
L25 ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:275188 HCAPLUS
DOCUMENT NUMBER: 126:342682
TITLE: Composition and functional properties of cholesterol reduced egg yolk
AUTHOR(S): Awad, A. C.; Bennink, M. R.; Smith, D. M.
CORPORATE SOURCE: Department of Food Science and Human Nutrition, Michigan State University, East Lansing, MI,

48824-1224, USA
SOURCE: Poultry Science (1997), 76(4), 649-653
CODEN: POSCAL; ISSN: 0032-5791
PUBLISHER: Poultry Science Association, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The composition and functional properties of cholesterol reduced egg yolk (CREY) were compared to those of control egg yolk (EY). The CREY was prepared by absorbing cholesterol with β-cyclodextrin after dilution and dissociation of granules at pH 10.5. The CREY contained less lipid and protein and more carbohydrate and ash than EY. Egg lipids were fractionated into triglycerides, cholesterol esters, free cholesterol, phosphatidyl choline, and phosphatidyl ethanolamine. Free and esterified cholesterol in CREY were reduced by 91.6 and 94.4%, resp. Triglycerides were the major lipid class in CREY. The CREY contained more oleic acid and less linoleic acid than the control. Protein solubility in 0.1 and 0.6 M NaCl and sponge cake volume did not differ. The composition of proteins soluble in 0.6 M NaCl in both egg prepns. were similar as determined by SDS-polyacrylamide gel electrophoresis. The electrophoretic profiles of proteins soluble in 0.1 M NaCl were similar, except that lipovitellin from EY was insol. under these conditions. The CREY was less yellow than EY, as indicated by β-carotene concns. and Hunter b values. Thus, β-cyclodextrin can be used to produce a low cholesterol egg product with compositional and functional properties similar to EY.

IT 60-33-3, Linoleic acid, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(composition and functional properties of cholesterol reduced egg yolk)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

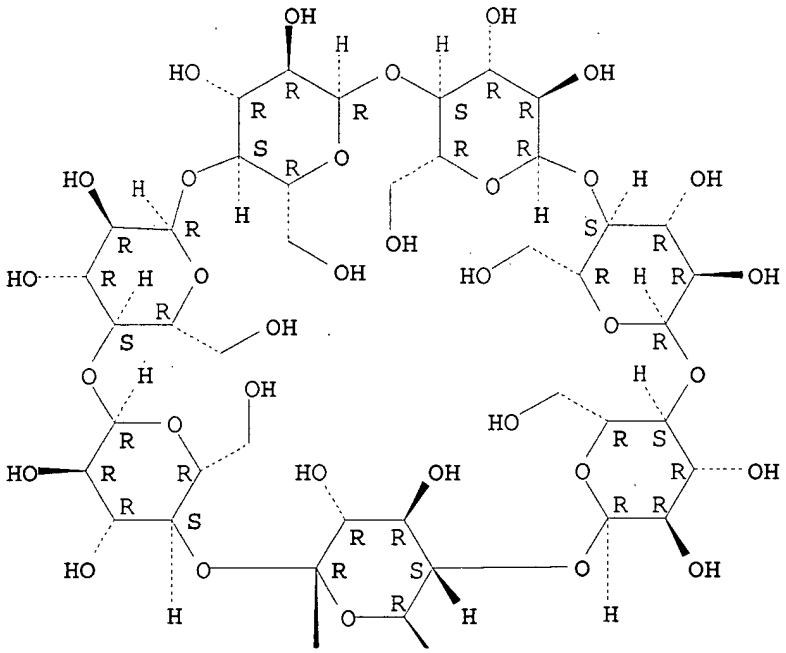
Double bond geometry as shown.



IT 7585-39-9, β-Cyclodextrin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(composition and functional properties of cholesterol reduced egg yolk)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

L25 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:259764 HCAPLUS
DOCUMENT NUMBER: 126:242891
TITLE: Mucosal preparation containing physiologically active peptide
INVENTOR(S): Yamamoto, Nakayuki; Ito, Teruomi
PATENT ASSIGNEE(S): Asahi Kasei Kogyo Kabushiki Kaisha, Japan; Hisamitsu Seiyaku Kabushiki Kaisha; Yamamoto, Nakayuki; Ito, Teruomi
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9706813	A1	19970227	WO 1996-JP2277	19960812 <--
W: CA, CN, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11292787	A	19991026	JP 1995-208010	19950815 <--
CN 1179723	A	19980422	CN 1996-192821	19960812 <--
EP 845265	A1	19980603	EP 1996-926626	19960812 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI

JP 3824023	B2	20060920	JP 1997-509140		19960812
PRIORITY APPLN. INFO.:			JP 1995-208010	A	19950815
			WO 1996-JP2277	W	19960812

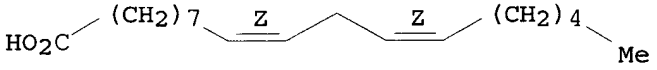
OTHER SOURCE(S): MARPAT 126:242891

AB This invention related to a mucosal preparation obtained by blending a physiol. active peptide at least with a sorbefacient and a vasodilatory compound Owing to the combined use of the sorbefacient with the vasodilatory compound, the absorption of any desired physiol. active peptide can be enhanced and thus it can be self-administered to a patient without giving any pain caused by parenteral injection. Therefore, it is highly useful as a preparation of a physiol. active peptide for prolonged administration. As the physiol. active peptide, use can be made of insulin, calcitonin, human PTH, somatostatin, glucagon, etc. As the sorbefacient, use can be made of bile acid salts, cyclodextrin, phospholipids, nonionic surfactants, higher fatty acids, etc. As the vasodilatory compds., use can be made of calcium channel inhibitors, prostaglandin E1, isosorbide nitrate, nitroglycerin, etc.

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
7585-39-9, β-Cyclodextrin 10016-20-3, α-Cyclodextrin 17465-86-0, γ-Cyclodextrin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sorbefacient and vasodilatory compound in mucosal preparation containing physiol. active peptide)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

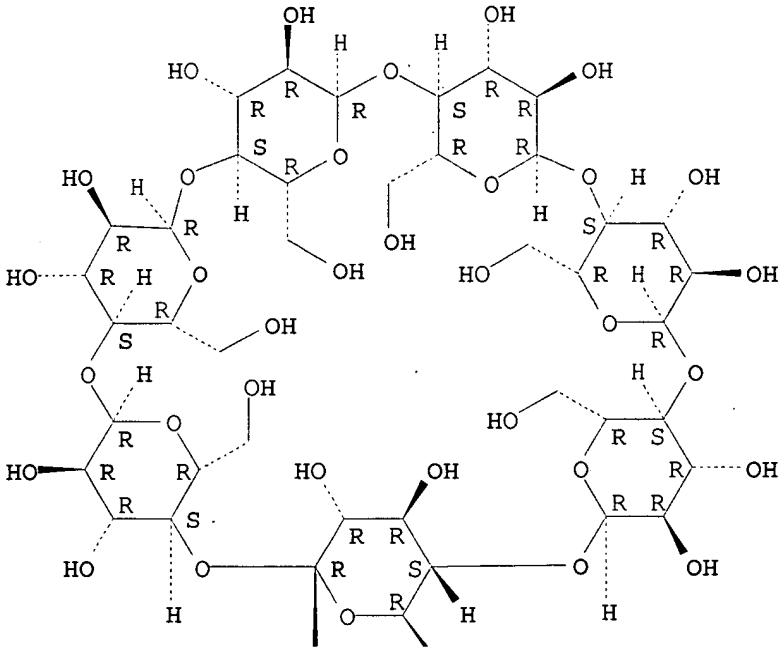
Double bond geometry as shown.



RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

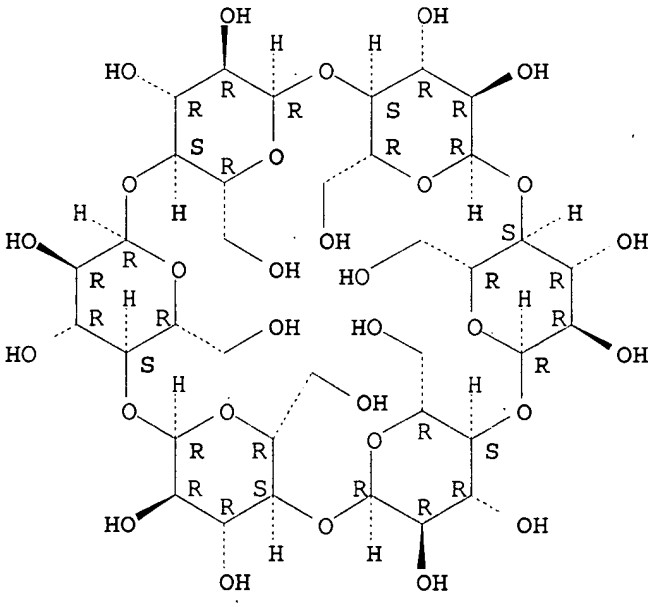
PAGE 1-A



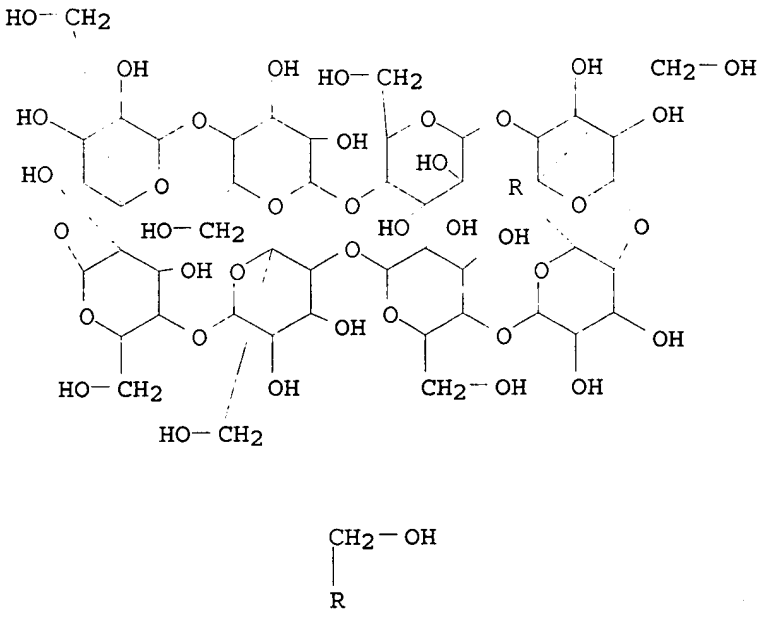
PAGE 2-A

RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

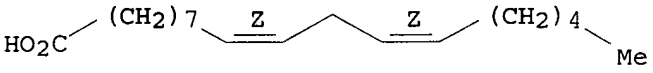


RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



L25 ANSWER 18 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:228761 HCAPLUS
DOCUMENT NUMBER: 126:313923
TITLE: Cyclodextrins as hosts for poorly water-soluble compounds in enzyme catalysis
AUTHOR(S): Bru, Roque; Lopez-Nicolas, Jose M.; Nunez-Delicado, Estrella; Nortes-Ruiperez, Dolores; Sanchez-Ferrer, Alvaro; Garcia-Carmona, Francisco
CORPORATE SOURCE: Departamento de Bioquimica y Biologia Molecular A, Facultad de Biologia, Universidad de Murcia, Murcia, E-30001, Spain
SOURCE: Applied Biochemistry and Biotechnology (1997), Volume Date 1996, 61(1/2, Biocatalysis-95), 189-198
CODEN: ABIBDL; ISSN: 0273-2289
PUBLISHER: Humana
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The capability of cyclodextrins to enhance greatly the solubility in water of poorly water-soluble substances makes them an ideal alternative for investigating the expression of enzyme activity with such substrates in aqueous solution This capability is demonstrated by using soybean lipoxygenase with linoleic acid/β-cyclodextrin and diethylstilbestrol/γ-cyclodextrin, and cholesterol oxidase with cholesterol/methyl-β-cyclodextrin.
IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(lipoxygenase substrate, solubilized with β-cyclodextrin; use in enzyme catalysis of cyclodextrin-mediated solubility enhancement of poorly water-soluble substrate compds.)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

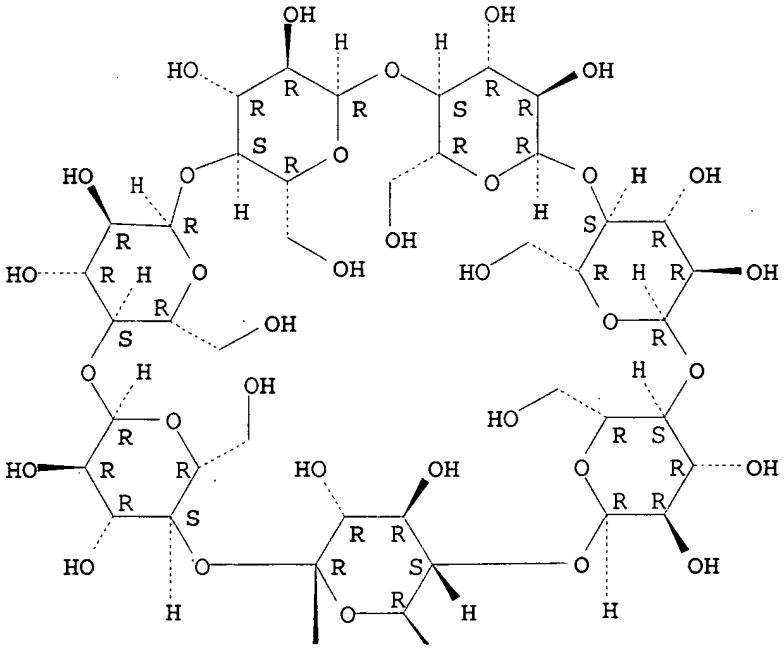
Double bond geometry as shown.



IT 7585-39-9, β-Cyclodextrin 7585-39-9D, β-Cyclodextrin, Me ethers 17465-86-0, γ-Cyclodextrin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(use in enzyme catalysis of cyclodextrin-mediated solubility enhancement of poorly water-soluble substrate compds.)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

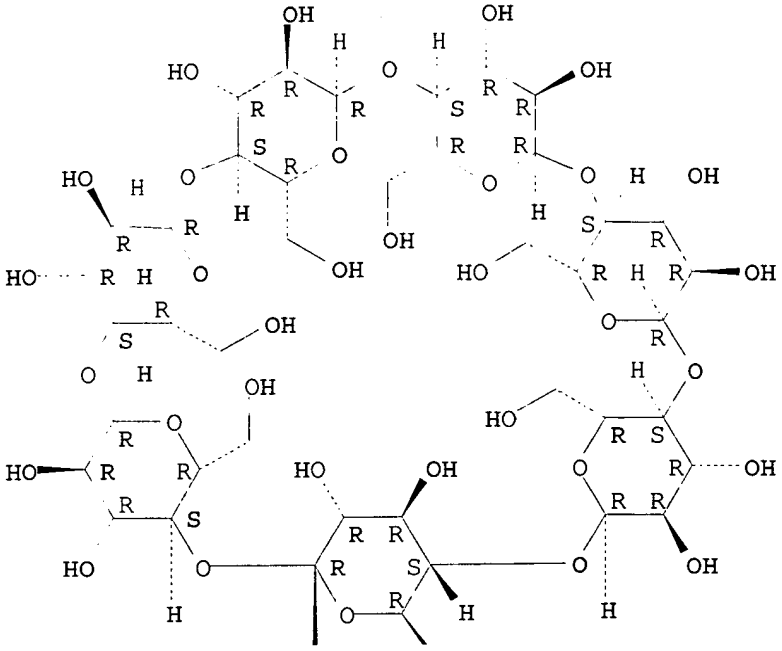


PAGE 2-A

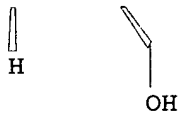
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

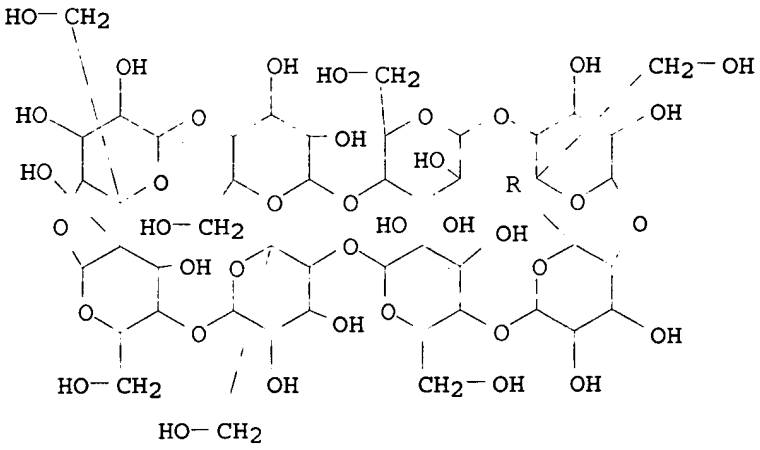
PAGE 1-A

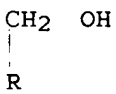


PAGE 2-A



RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)





L25 ANSWER 19 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:572123 HCAPLUS
DOCUMENT NUMBER: 125:219760
TITLE: A method of producing a taxane-type diterpene
INVENTOR(S): Yukimune, Yukihito; Hara, Yasuhiro; Tan, Hiroaki; Tomino, Ikuo
PATENT ASSIGNEE(S): Mitsui Petrochemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 727492	A2	19960821	EP 1995-308498	19951127 <--
EP 727492	A3	19961016		
EP 727492	B1	20010131		
R: DE, FR, GB, IT, NL				
JP 08140690	A	19960604	JP 1994-291783	19941125 <--
JP 3549594	B2	20040804		
JP 08163991	A	19960625	JP 1994-312258	19941215 <--
JP 09065889	A	19970311	JP 1995-218874	19950828 <--
JP 3625908	B2	20050302		
JP 08205882	A	19960813	JP 1995-301654	19951120 <--
JP 3746550	B2	20060215		

PRIORITY APPLN. INFO.:
JP 1994-291783 A 19941125
JP 1994-301179 A 19941205
JP 1994-312258 A 19941215
JP 1995-218874 A 19950828

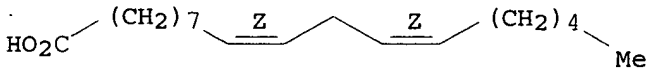
OTHER SOURCE(S): MARPAT 125:219760

AB A simple method of producing a taxane-type diterpene by plant tissue culture is disclosed. Productivity can be improved by carrying out the culture in the presence of coronatines, a bacterium that produced the coronatines, a culture solution or a culture extract of such bacteria, cyclic polysaccharides, fatty acids, or an amino or imino derivative of jasmonic acids.

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
7585-39-9, β-Cyclodextrin 10016-20-3, α-Cyclodextrin 17465-86-0, γ-Cyclodextrin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(producing taxane-type diterpenes by Taxus tissue culture)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

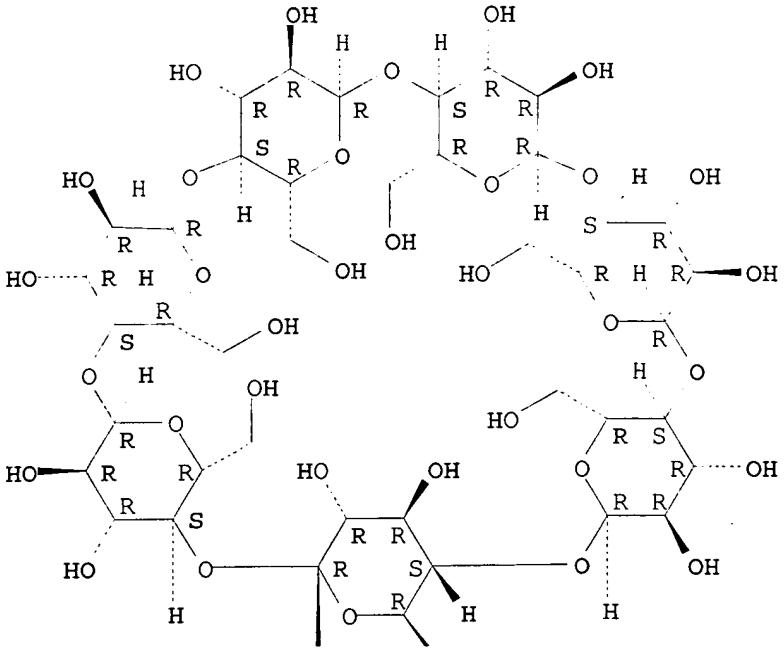
Double bond geometry as shown.



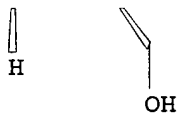
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

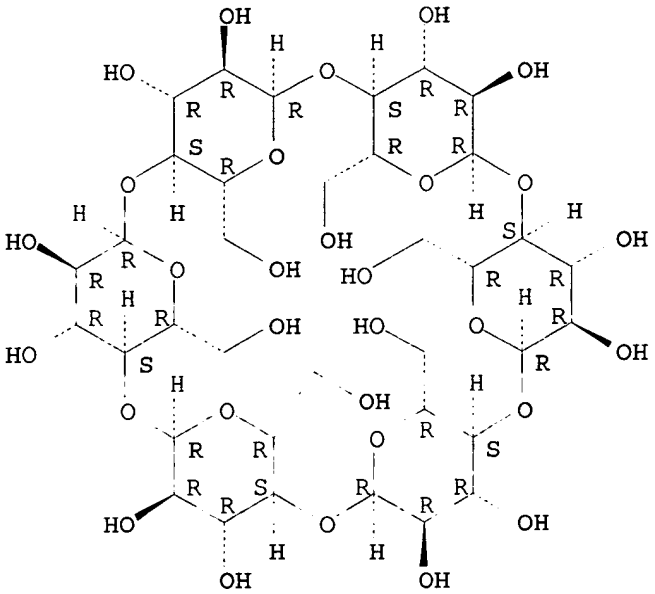


PAGE 2-A

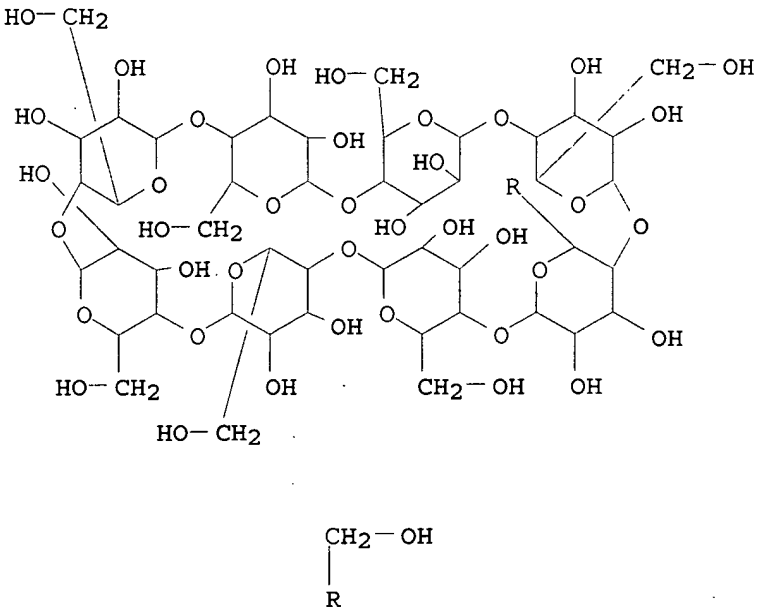


RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



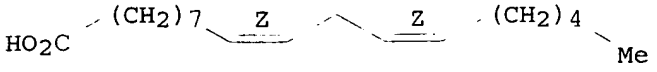
RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



L25 ANSWER 20 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:529405 HCAPLUS
DOCUMENT NUMBER: 125:188986
TITLE: Cyclodextrins as molecular tools to investigate the surface properties of potato 5-lipoxygenase
AUTHOR(S): Bru, R.; Lopez-Nicolas, J. M.; Sanchez-Ferrer, A.; Garcia-Carmona, F.
CORPORATE SOURCE: Facultad Biologia, Universidad Murcia, Murcia, E-30080, Spain
SOURCE: Progress in Colloid & Polymer Science (1996), 100(Trends in Colloid and Interface Science X), 276-280
CODEN: PCPSD7; ISSN: 0340-255X
PUBLISHER: Steinkopff
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The behavior of potato 5-lipoxygenase acting on both monomeric and aggregated linoleic acid has been studied. While the substrate preparation was transparent, lipoxygenase activity was determined by means of a spectrophotometric method, which was not useful to determine the activity in turbid samples. In the latter case a polarog. method was used. Cyclodextrins were used to increase the range of monomeric, and thus transparent, linoleic acid. This clearly revealed that potato 5-lipoxygenase can be saturated by linoleic acid monomers but when aggregates are formed at higher linoleic acid concentration, activity raises and stabilizes in a new saturation level.>. This was interpreted as an activation of lipoxygenase induced by the aggregation of its substrate, linoleic acid. Kinetic parameters were determined in each region - monomeric and aggregate - and are consistent with the surface activation hypothesis.
IT 60-33-3, Linoleic acid, biological studies 7585-39-9, β-Cyclodextrin
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(cyclodextrins as mol. tools to investigate the surface properties of

potato 5-lipoxygenase)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

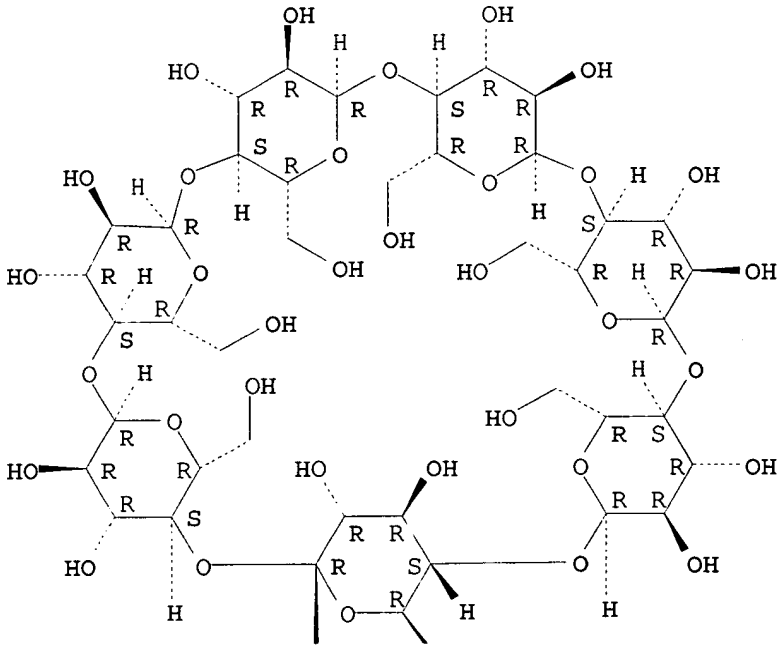
Double bond geometry as shown.



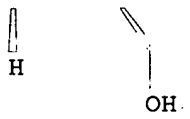
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L25 ANSWER 21 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:364944 HCAPLUS
DOCUMENT NUMBER: 125:56734
TITLE: Influence of maltodextrin, cyclodextrin and palm oil on the aroma retention of apricot powders
AUTHOR(S): Di Cesare, L. F.; Nani, R.; Mariani, N.; D'Angelo, V.
CORPORATE SOURCE: Instituto Sperimentale Ia Valorizzazione Tecnologica Prodotti Agricoli, Milan, 20133, Italy
SOURCE: Industrie delle Bevande (1996), 25(142),

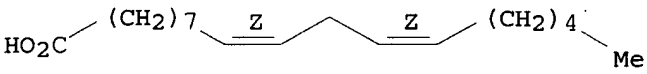
101-107
CODEN: INBEEW; ISSN: 0390-0541
PUBLISHER: Chiriotti
DOCUMENT TYPE: Journal
LANGUAGE: Italian

AB The volatile compds. retention of the apricot powders, prepared by a vacuum static and a vacuum belt dryer, was studied. The apricot pulp, after partial enzymic pectinolysis, was separated by a decanter and then the juice was concentrated at 54°Brix. The natural volatile compds. (natural extract) were recovered from the distillate by KS112 resin. The juice concentrate, before being dried, was aromatized with natural-identical compds. (model mixture) or natural volatile compds. incorporated into maltodextrin, palm oil, or encapsulated into β-cyclodextrin. The determination of volatile compound retention in the powders was carried out by GC/MS-SIM quant. anal. The preliminary results obtained with a static dryer pointed out that the retention of natural-identical compds. in the apricot powders increased in the presence of maltodextrin, β-cyclodextrin, maltodextrin + β-cyclodextrin and palm oil + maltodextrin, while not in the powders without these substances. The juice concentrate containing both model mixture and natural volatile extract had the same results, when they were incorporated or encapsulated into the same substances and submitted to the vacuum belt dryer. There was also a sensorial test for color, odor, aroma, and taste. The powders aromatized with natural compds. and prepared by a vacuum belt dryer were reconstituted at 10°-11°Brix with H2O dist. The juices were then compared with a test juice obtained from the reconstitution at 10°-11°Brix of the juice concentrate (54°Brix), and aromatized with natural volatile extract For the aroma, odor, and taste, all the samples were acceptable. On the contrary, the juices containing maltodextrin and maltodextrin + β-cyclodextrin were less colored than the test juice.

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(maltodextrin, cyclodextrin, and palm oil effect on the aroma and volatile compound retention of apricot powders)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

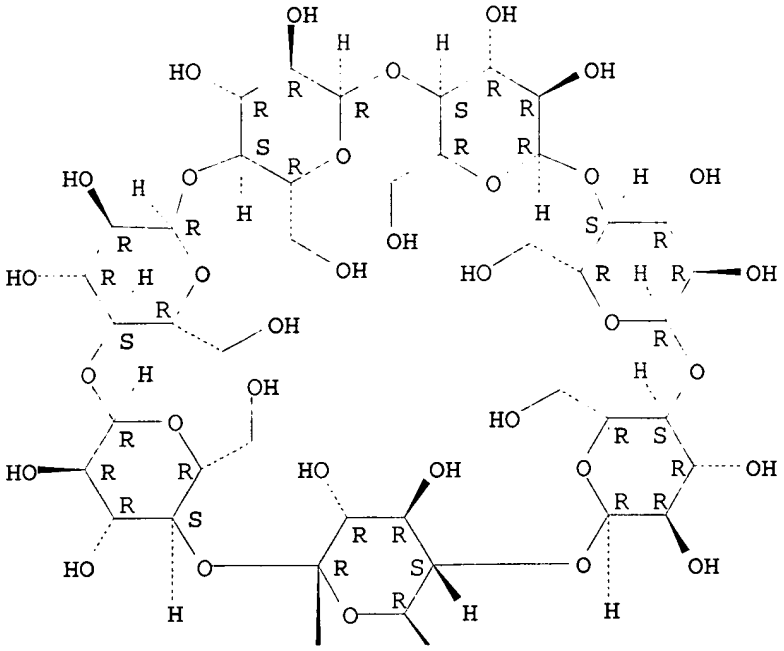


IT 7585-39-9, β-Cyclodextrin
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(maltodextrin, cyclodextrin, and palm oil effect on the aroma retention of apricot powders)

RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

L25 ANSWER 22 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:753643 HCAPLUS
DOCUMENT NUMBER: 123:152922
TITLE: Transparent liquid for encapsulated drug delivery
INVENTOR(S): Yiv, Seang H.
PATENT ASSIGNEE(S): Ibah, Inc., USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9514037	A1	19950526	WO 1994-US13394	19941116 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2176927	A1	19950526	CA 1994-2176927	19941116 <--
AU 9512917	A	19950606	AU 1995-12917	19941116 <--

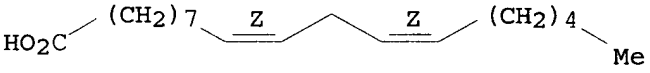
AU 692506	B2	19980611			
EP 736041	A1	19961009	EP 1995-904099		19941116 <--
EP 736041	B1	20060208			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 09510182	T	19971014	JP 1994-514649		19941116 <--
AT 317397	T	20060215	AT 1995-904099		19941116
US 5707648	A	19980113	US 1995-406935		19950517 <--
PRIORITY APPLN. INFO.:			US 1993-153846	A	19931117
			WO 1994-US13394	W	19941116

AB A stable transparent multi-component composition useful for the delivery of water soluble active agents to animals is provided. The compns. are formulated with a mixture of an oil phase, an aqueous phase, and a surfactant system, along with the active agent to be delivered to the animal. The compns. are specially formulated to be compatible with capsules such as gelatin and starch capsules. The aqueous phase of the compns. contains a substantial amount of polyethylene glycol and can optionally also contain a plasticizer. Preferred active agents are proteinaceous materials. Calcein bioavailability from a transparent liquid containing Captex 200 12, Imwitor 308 29.8, Tween 80 19.2, PEG 400 32.4, sorbitol 1.6, water 3% weight/weight, and 100 mM calcein solution in 10 mM Tris pH 7.4 3% weight/weight, resp., was studied.

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
7585-39-9, β Cyclodextrin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transparent liquid compns. for encapsulated drug delivery)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

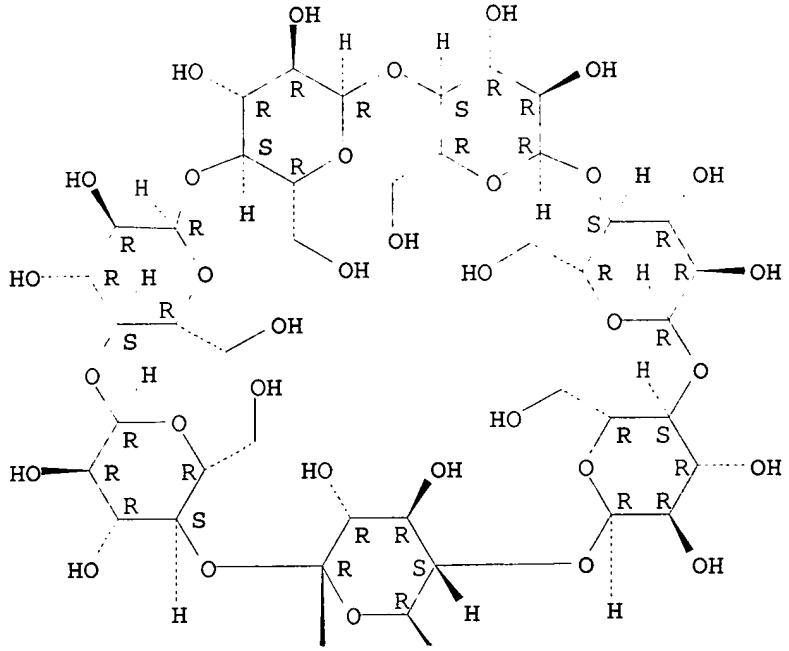
Double bond geometry as shown.



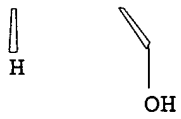
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L25 ANSWER 23 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:628687 HCAPLUS
DOCUMENT NUMBER: 123:50376
TITLE: Aggregation of polyunsaturated fatty acids in the presence of cyclodextrins
AUTHOR(S): Bru, Roque; Lopez-Nicolas, Jose M.; Garcia-Carmona, Francisco
CORPORATE SOURCE: Dep. Bioquim. Biol. Mol. "A", Univ. Murcia, Murcia, E-30001, Spain
SOURCE: Colloids and Surfaces, A: Physicochemical and Engineering Aspects (1995), 97(3), 263-9
CODEN: CPEAEH; ISSN: 0927-7757
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

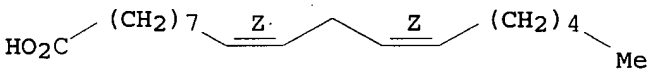
AB The aggregation behavior of the polyunsatd. fatty acids (PUFA) linoleic acid and arachidonic acid was studied in the presence of cyclodextrins (CDs). The influence of CD concentration on CMC of PUFA suggests that two CD mols. bind sequentially to one mol. of PUFA. Two equilibrium consts., K1 representing the interaction of the first CD mol., and K2, the interaction of the second, were determined by non-linear regression of the PUFA CMC vs. CD concentration data to an expression deduced from the reaction scheme in the equilibrium The effect of pH and the structure of the CD on the equilibrium consts. was studied. It is postulated that the first CD mol. interacts with the carboxyl group of PUFA through hydrogen bonding when the fatty acid is

protonated, while the second CD mol. binds to the hydrocarbon chain of the PUFA through hydrophobic interaction. The formation of hydrogen bonds was principally affected by the inner diameter of the CD, while the hydrophobic interactions were very strongly affected by the polarity of the CD group coating the inner channel. The relevance of the results for the development of enzyme assays involving fatty acids is discussed.

IT 60-33-3, Linoleic acid, properties 7585-39-9, β Cyclodextrin 7585-39-9D, β Cyclodextrin, ethers with methanol 10016-20-3, α Cyclodextrin 17465-86-0, γ Cyclodextrin
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(aggregation of polyunsatd. fatty acids in presence of cyclodextrins)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

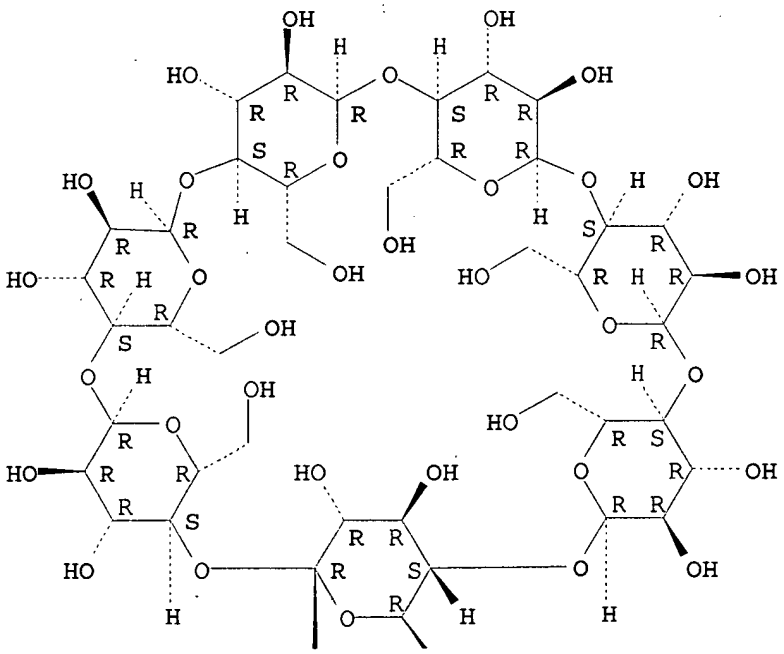
Double bond geometry as shown.



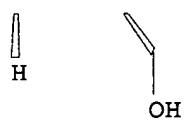
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



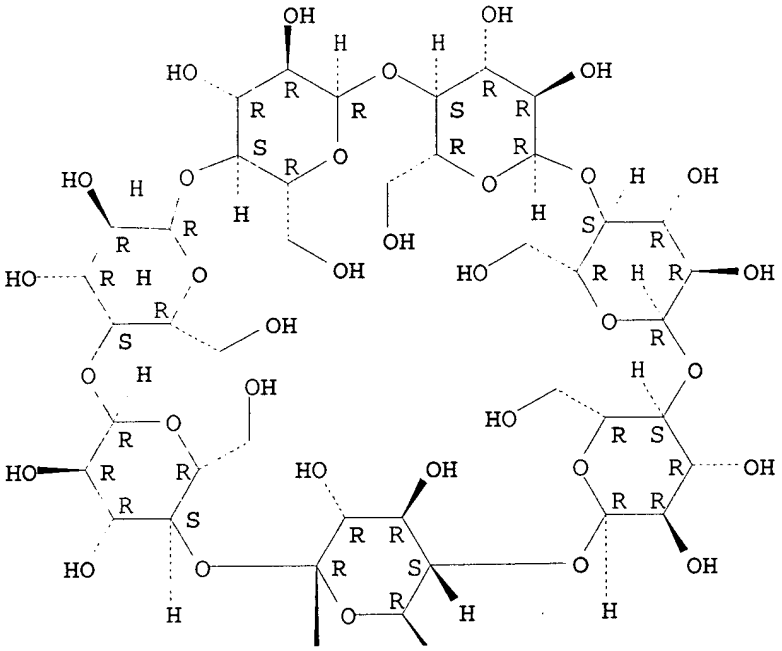
PAGE 2-A



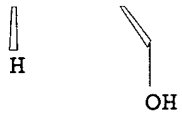
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

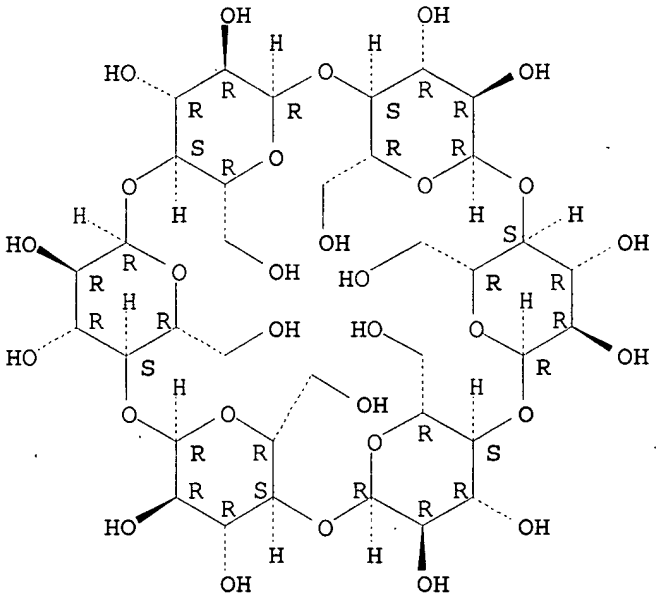


PAGE 2-A

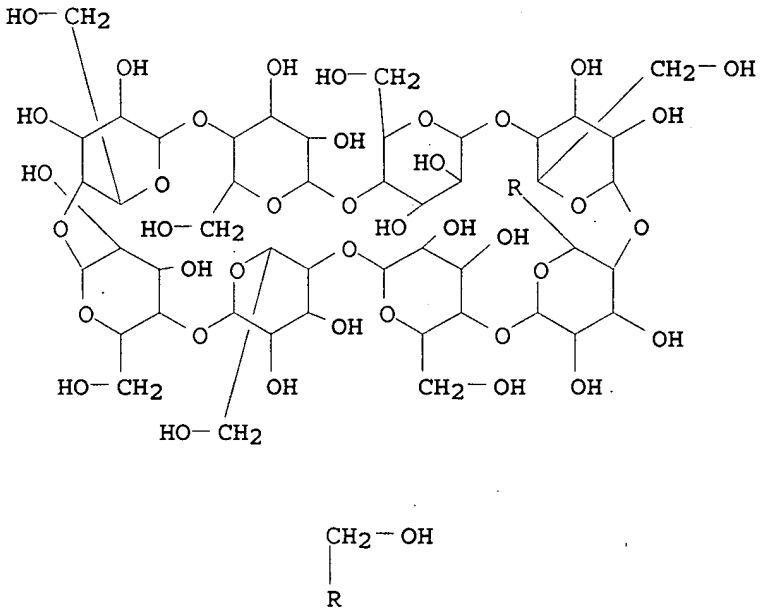


RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



L25 ANSWER 24 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:485889 HCAPLUS
DOCUMENT NUMBER: 122:263834
TITLE: Entrapment of liquid lipids into powdery matrixes of saccharides and proteins
AUTHOR(S): Matsuno, Ryuichi; Imagi, Jun; Adachi, Shuji
CORPORATE SOURCE: Fac. Agric., Kyoto Univ., Kyoto, 606-01, Japan
SOURCE: Dev. Food Eng., Proc. Int. Congr. Eng. Food, 6th (1994), Meeting Date 1993, Volume Pt. 2, 1065-7. Editor(s): Yano, Toshimasa; Matsuno, Ruuichi; Nakamura, Kozo. Blackie: Glasgow, UK.

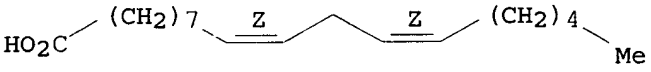
CODEN: 61FFAL
DOCUMENT TYPE: Conference
LANGUAGE: English

AB The emulsifying activity, the high stabilizing activity of the emulsion and the formation of a fine dense skin layer during drying were the properties of agents that effectively entrapped liquid lipids. Gum arabic and gelatin were effective. Addition of an agent having a property to a base agent lacking the property improved the entrapment. Oxidation of entrapped liquid lipid was retarded. However, the extent of retardation depended on the kind of lipids and the kind of entrapping agents. Oxidation processes of some combinations of lipids and entrapping agents were expressed by a kinetic model including oxygen diffusion through dehydrated entrapping agents. Et eicosapentaenoate was also stabilized by the entrapment.

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, processes
10016-20-3, α-Cyclodextrin
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(entrapment of liquid lipids into powdery matrixes of saccharides and proteins)

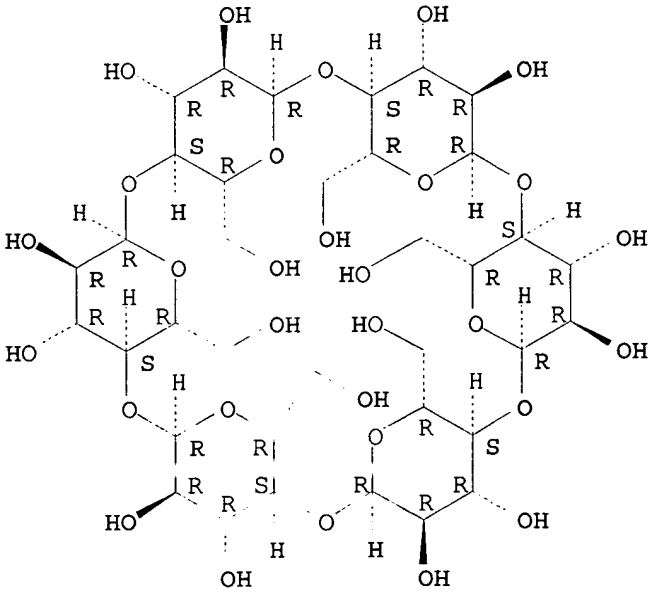
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L25 ANSWER 25 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:13452 HCAPLUS
DOCUMENT NUMBER: 122:4734
TITLE: Solubilization of fatty acids and similar lipids by methylated cyclodextrins
AUTHOR(S): Szente, L.; Szejtli, J.; Kato, L.

CORPORATE SOURCE: CYCLOLAB, Cyclodextrin Res. and Dev. Lab. Ltd., Budapest, 1026, Hung.
SOURCE: Minutes Int. Symp. Cyclodextrins, 6th (1992), 340-4. Editor(s): Hedges, Allan R. Ed. Sante: Paris, Fr.
CODEN: 60BCAL
DOCUMENT TYPE: Conference
LANGUAGE: English

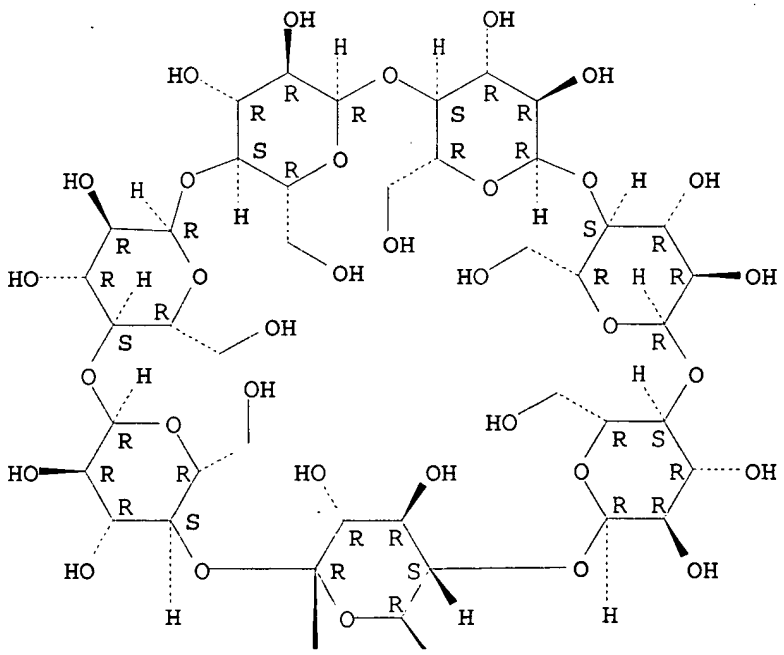
AB Naturally occurring lipids were transformed into water soluble forms by using chemical modified cyclodextrins as solubilizers. DIMEB (2,6-dimethyl-βCD), randomly methylated βCD(RAMEB) and HPBCD (2-hydroxypropyl-BCD) were compared as solubility enhancers. DIMEB and RAMEB were the most potent solubilizers for fatty acids and other studied natural lipophiles. Solid complexes were prepared via freeze-drying with an average lipid content of 2 to 5%. By dissolving these formulations clear, stable aqueous solns. are obtained. The real mol. dispersity of the fatty acids in this form was probably responsible for the very promising results obtained in the first successful in vitro cultivation of leprosy bacilli using soluble palmitic acid complexes. This findings may open a new way in the chemotherapy of leprosy.

IT 7585-39-9D, β-Cyclodextrin, alkyl ethers
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); NUU (Other use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(solubilization of fatty acids and similar lipids by methylated cyclodextrins)

RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

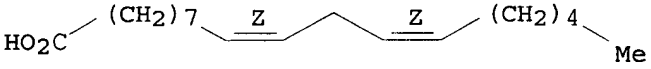
Absolute stereochemistry.

PAGE 1-A



IT 60-33-3, Linoleic acid, biological studies
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(solubilization of fatty acids and similar lipids by methylated cyclodextrins)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

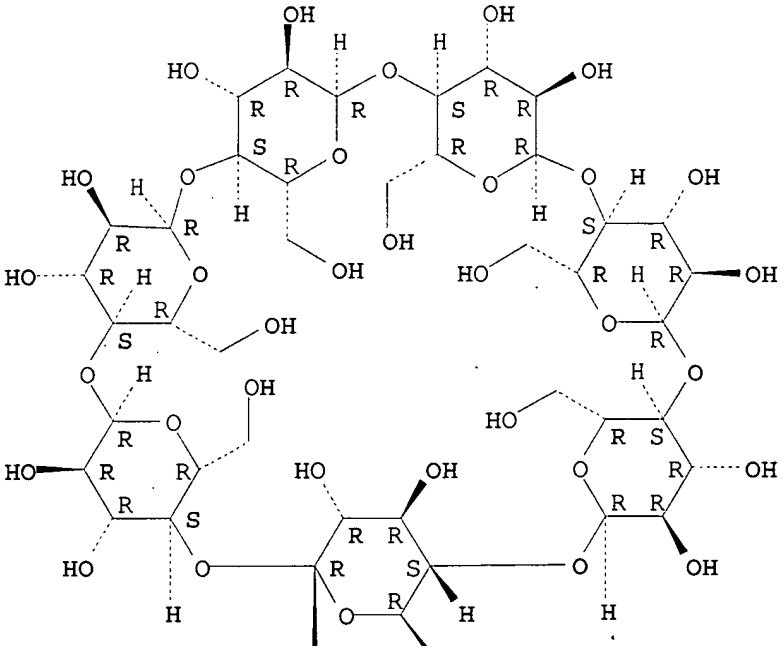
Double bond geometry as shown.



L25 ANSWER 26 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:491478 HCAPLUS
DOCUMENT NUMBER: 121:91478
TITLE: Release control of isosorbide dinitrate by cyclodextrin complexation
AUTHOR(S): Seo, H.; Oh, K.; Hirayama, F.; Uekama, K.
CORPORATE SOURCE: Dep. Pharm., Miyazaki Med. Coll. Hosp., Kiyotake, 889-16, Japan
SOURCE: Minutes Int. Symp. Cyclodextrins, 6th (1992) , 543-6. Editor(s): Hedges, Allan R. Ed. Sante: Paris, Fr.
CODEN: 60BCAL
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The permeation of isosorbide dinitrate (ISDN) through the skin of hairless mice was significantly enhanced when the drug was administered as suspension containing 2-hydroxypropyl-β-cyclodextrin (HP-β-CyD). The skin permeation of ISDN was much more enhanced after the co-administration of HP-β-CyD and unsatd. fatty acids employed. On the other hand, the permeation of ISDN was decreased when the drug was administered as solution with HP-β-CyD.
IT 7585-39-9D, β-Cyclodextrin, ethers with propanediol
RL: BIOL (Biological study)
(isosorbide dinitrate skin permeation control by complexation with)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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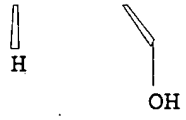
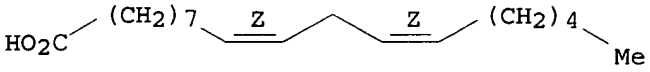


IT 60-33-3, Linoleic acid, biological studies
RL: BIOL (Biological study)
(isosorbide dinitrate skin permeation control by complexation with hydroxypropyl β-cyclodextrin and)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



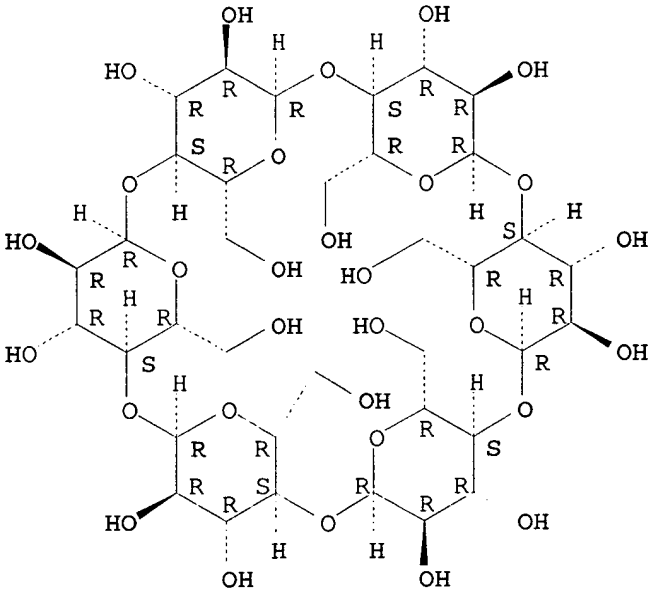
L25 ANSWER 27 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:579303 HCAPLUS
DOCUMENT NUMBER: 119:179303
TITLE: Utilization of cyclodextrin as fat soluble compound carrier to serum-free culture of rat astrocytes
AUTHOR(S): Nakama, Akihiko
CORPORATE SOURCE: Osaka City Inst. Public Health Environ. Sci., Osaka, 543, Japan
SOURCE: Annual Report of Osaka City Institute of Public Health and Environmental Sciences (1992), Volume Date 1991, 54, 48-53

CODEN: AOISDR; ISSN: 0285-5801
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB α-Cyclodextrin complexes with fat-soluble vitamins and unsatd. fatty acids were prepared and examined as replacements for bovine serum albumin as fat-soluble compound carriers on cultured rat astrocytes. In serum-supplemented medium, it was difficult to evaluate the effects of fat-soluble compds. in serum on cell growth. Therefore, serum-free chemical defined medium supplemented with growth factors, hormones, and nutrients was developed for rat astrocytes to evaluate these effects. α-Cyclodextrin complexes with 3 vitamins (vitamin A acetate, E, and K1) and 3 fatty acids (linoleic, linolenic, and oleic acids) showed growth promoting activities for astrocytes in serum-free medium. Usually, supplementing fat-soluble compds. to a cell culture medium is very difficult, especially to a low or no protein medium, but α-cyclodextrin can replace albumin as a fat-soluble compound carrier in serum-free cell cultures.

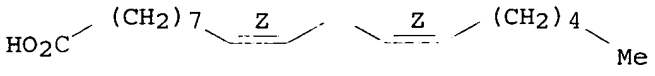
IT 10016-20-3, α-Cyclodextrin
RL: BIOL (Biological study)
(as carrier, for fat-soluble compds. in astrocyte cell cultures)
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 60-33-3, Linoleic acid, biological studies
RL: BIOL (Biological study)
(cyclodextrin as carrier for, in astrocyte cultures)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



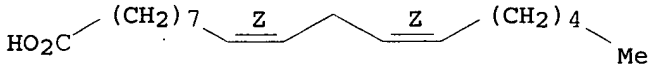
L25 ANSWER 28 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:590442 HCAPLUS

DOCUMENT NUMBER: 117:190442
TITLE: Retarded oxidation of liquid lipids entrapped in matrixes of saccharides or proteins
AUTHOR(S): Imagi, Jun; Muraya, Koji; Yamashita, Daisuke; Adachi, Shuji; Matsuno, Ryuichi
CORPORATE SOURCE: Fac. Agric., Kyoto Univ., Kyoto, 606-01, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (1992), 56(8), 1236-40
CODEN: BBBIEJ; ISSN: 0916-8451
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Me linoleate (ML), linoleic acid (LA), and Et eicosapentaenoate (EE) were entrapped in saccharide and protein matrixes, and then stored at 37° in a desiccator controlled at 75% relative humidity. ML entrapped with α-cyclodextrin, maltodextrin, and pullulan was extremely resistant to autoxidn., but LA entrapped with maltodextrin and pullulan rapidly oxidized. LA entrapped with α-cyclodextrin was the most stable against oxidation ML entrapped with gelatin or gum arabic was less resistant to autoxidn. than that entrapped with pullulan; there was little difference in the susceptibility to oxidation between ML and LA entrapped with gelatin or gum arabic. Egg albumin protected ML more effectively against oxidation than LA, while sodium caseinate protected LA more than ML. EE entrapped with pullulan was highly resistant to oxidation, 90% of the total lipid remaining after 35 days. The effect on the oxidation of diffusion of oxygen through the matrix was estimated Retardation of oxidation of the entrapped lipid can not be explained only by the effect of diffusion.

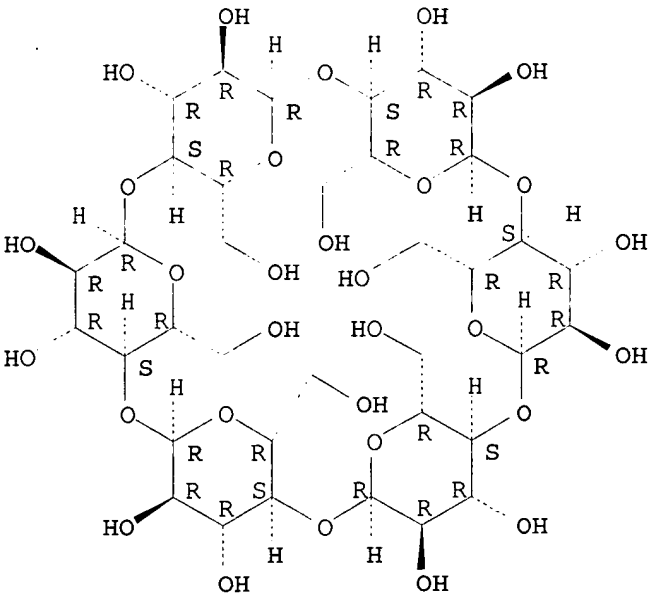
IT 60-33-3, Linoleic acid, biological studies
RL: RCT (Reactant); RACT (Reactant or reagent)
(autoxidn. of, entrapment in polysaccharides and proteins retardation of)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



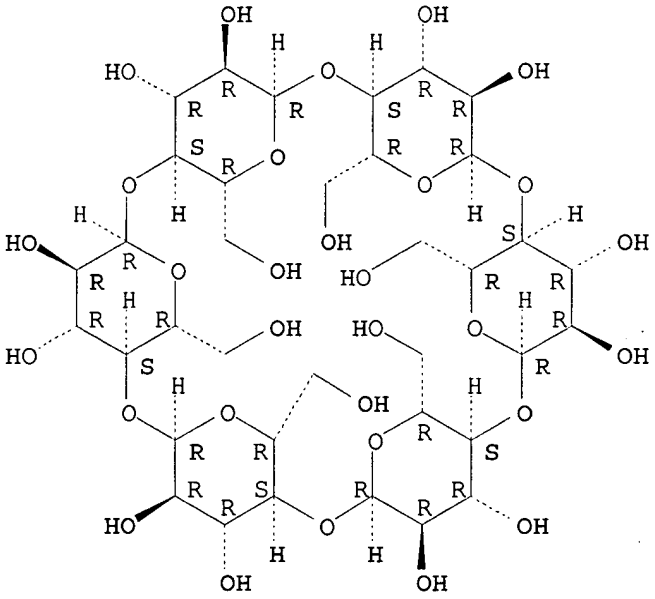
IT 10016-20-3, α-Cyclodextrin
RL: BIOL (Biological study)
(liquid lipids entrapment in, autoxidn. retardation by)
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



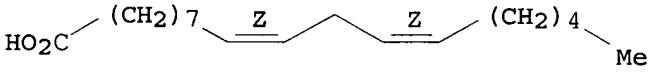
L25 ANSWER 29 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:654556 HCAPLUS
DOCUMENT NUMBER: 115:254556
TITLE: Powderization of liquid-state lipids
AUTHOR(S): Matsuno, Ryoichi; Imagi, Jun
CORPORATE SOURCE: Agric. Coll., Kyoto Univ., Kyoto, Japan
SOURCE: New Food Industry (1991), 33(5), 57-64
CODEN: NYFIAM; ISSN: 0547-0277
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Liquid-state lipids (linoleic acid, Me linoleate, or Me oleate) were powderized by adsorption on gum arabic, starch, maltodextrin, α-cyclodextrin, maltose, glucose, or CM-cellulose. Lipids adsorbed on α-cyclodextrin, gum arabic, or CM-cellulose had high stability. The emulsifying activity of the lipid-adsorbent complex is described.
IT 10016-20-3, α-Cyclodextrin
RL: BIOL (Biological study)
(fatty acids and fatty acid Me esters adsorption on, for food application)
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 60-33-3, Linoleic acid, biological studies
RL: BIOL (Biological study)
(powder, emulsifying activity of)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L25 ANSWER 30 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:404000 HCAPLUS
DOCUMENT NUMBER: 115:4000
TITLE: Soybean lipoxygenase catalyzed oxygenation of unsaturated fatty acid encapsulated in cyclodextrin
AUTHOR(S): Jyothirmayi, Nimmagadda; Ramadoss, Candadai S.
CORPORATE SOURCE: Food Chem. Dep., Cent. Food Technol. Res. Inst., Mysore, India
SOURCE: Biochimica et Biophysica Acta, Lipids and Lipid Metabolism (1991), 1083(2), 193-200
CODEN: BBLLA6; ISSN: 0005-2760
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Linolic acid or arachidonic acid entrapped in cyclodextrin (α, β or γ) serves as an excellent substrate for soybean lipoxygenase-1 catalysis. At pH 9.0 the Km values for the β-cyclodextrin-encapsulated arachidonic acid, referred herein as encapsulated substrate, and the Tween-20-dispersed substrate were 7.7 and 7.5 μM, resp. However, the Vmax values for α- and β-cyclodextrin-solubilized substrates were lower in comparison with the Tween-20-dispersed substrate. Interestingly, the pH-activity profile for the enzyme toward cyclodextrin-encapsulated arachidonic acid showed an optimum of .apprx.7.5, whereas that toward the Tween-20 dispersion showed the expected broad optimum in the alkaline range (8.5-10.0). The activity with encapsulated substrate at pH 7.5 was ≥5-fold higher than that obtained with Tween-20-dispersed substrate at the corresponding pH.

Similar results were obtained using linolic acid. The 2nd-order rate constant, kcat/Km, for the encapsulated substrate was an order of magnitude higher when compared to the Tween-20-dispersed substrate. The plot of velocity obtained at pH 9.0, against substrate concentration gave hyperbolic curves for both the encapsulated as well as the Tween-20-dispersed substrates, whereas at pH 7.5, the curve for cyclodextrin-encapsulated arachidonic acid appeared initially concave and then at higher concns. of the substrate, sigmoidal. The positional specificity of soybean lopoxygenase remained unaltered, however.

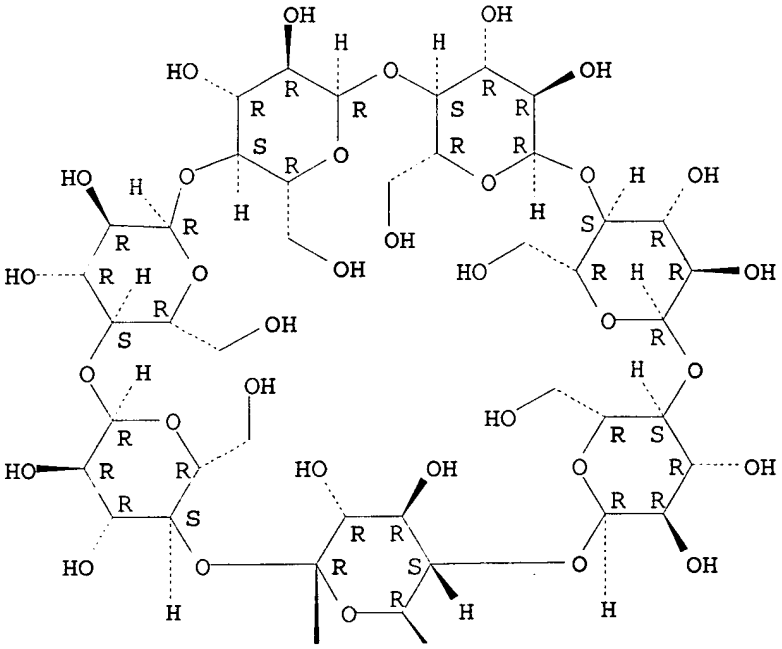
IT 7585-39-9, β-Cyclodextrin
RL: BIOL (Biological study)
(arachidonic acid encapsulated in, hydrolysis of, by lipoxygenase of soybean, kinetics of)

RN 7585-39-9 HCAPLUS

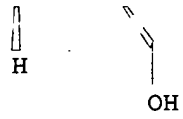
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

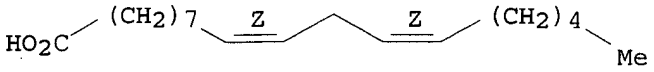


IT 60-33-3, Linoleic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclodextrin-encapsulated, hydrolysis of, by lipoxygenase of soybean)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

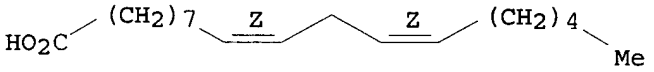


L25 ANSWER 31 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:453519 HCAPLUS
DOCUMENT NUMBER: 111:53519
TITLE: Specific adsorbents in isolation and purification of cyclodextrins
AUTHOR(S): Makela, Mauri; Mattsson, Pekka; Korpela, Timo
CORPORATE SOURCE: Dep. Biochem., Univ. Turku, Turku, SF-20500, Finland
SOURCE: Biotechnology and Applied Biochemistry (1989), 11(2), 193-200
CODEN: BABIEC; ISSN: 0885-4513
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A number of synthesized affinity sorbents were tested to find methods for the separation of α-, β-, and γ-cyclodextrins (CDs) from one another and from acyclic dextrins. None of the gels retarded acyclic dextrins, whereas α-CD was specifically adsorbed onto supports derivatized with alkyl functions, β-CD was specifically adsorbed onto supports derivatized with phenyl or substituted Ph, and γ-CD was specifically adsorbed onto a gel derivatized with a naphthyl compound It was evident that for achievement of binding capacities high enough for practical preparation of the CDs, various parameters such as the support material, its porosity, ligand, ligand concentration, temperature, and the composition of the mobile phase must be optimized.

IT 60-33-3D, 9,12-Octadecadienoic acid (Z,Z)-, derivs.
RL: ANST (Analytical study)
(for cyclodextrins isolation and purification by affinity liquid chromatog.)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

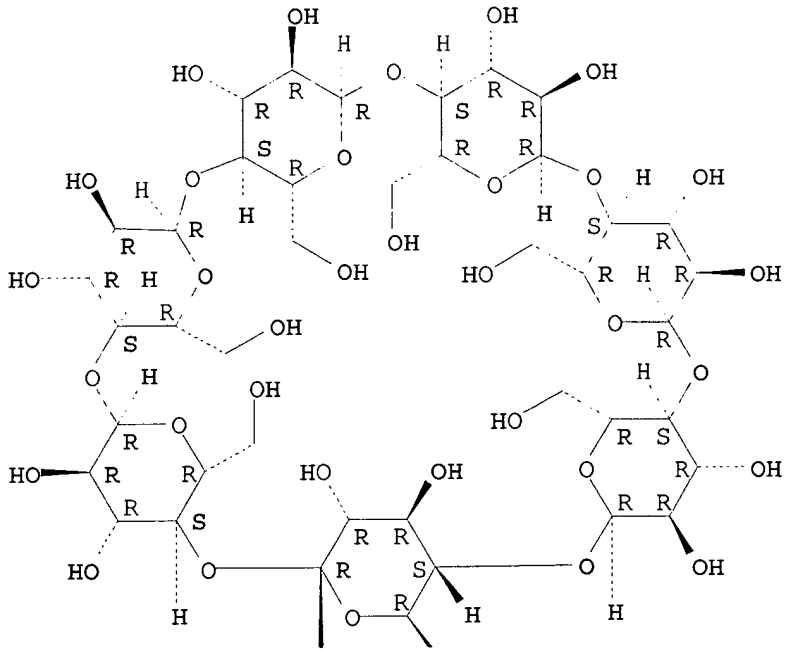
Double bond geometry as shown.



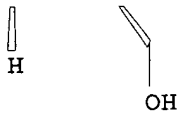
IT 7585-39-9P, β-Cyclodextrin 10016-20-3P, α-Cyclodextrin 17465-86-0P, γ-Cyclodextrin
RL: PREP (Preparation)
(isolation and purification of, by affinity liquid chromatog., adsorbents in)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

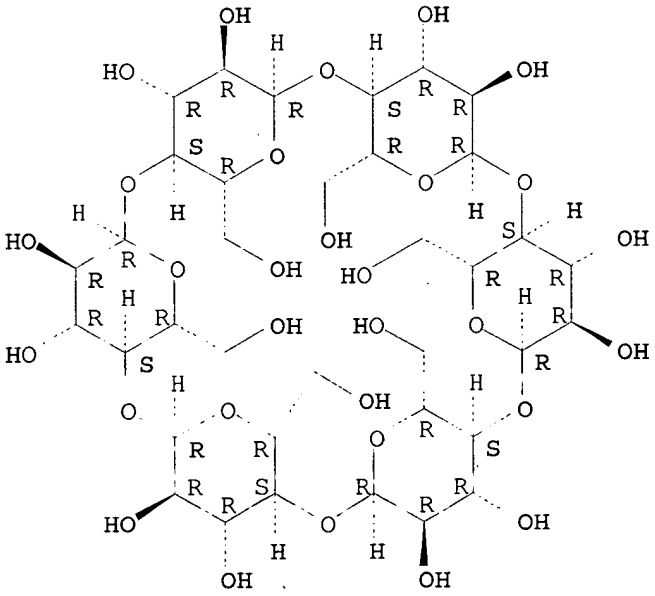


PAGE 2-A

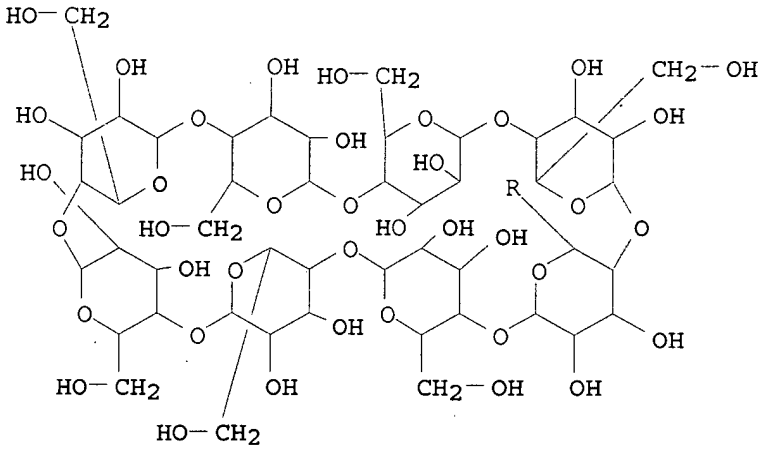


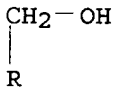
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

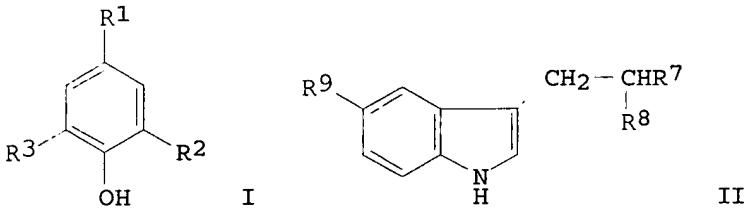




L25 ANSWER 32 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1988:443459 HCAPLUS
DOCUMENT NUMBER: 109:43459
TITLE: Pharmaceuticals containing unsaturated fatty acids and stimulators for synthesis of prostaglandin and hydroxy fatty acids
INVENTOR(S): Weithmann, Klaus Ulrich
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 244832	A2	19871111	EP 1987-106520	19870506 <--
EP 244832	A3	19891129		
EP 244832	B1	19920624		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DE 3615710	A1	19871126	DE 1986-3615710	19860509 <--
AT 77549	T	19920715	AT 1987-106520	19870506 <--
ES 2051705	T3	19940701	ES 1987-106520	19870506 <--
DK 8702356	A	19871110	DK 1987-2356	19870508 <--
DK 167518	B1	19931115		
AU 8772641	A	19871112	AU 1987-72641	19870508 <--
AU 603574	B2	19901122		
JP 62267222	A	19871119	JP 1987-110953	19870508 <--
ZA 8703299	A	19871230	ZA 1987-3299	19870508 <--
HU 44433	A2	19880328	HU 1987-2088	19870508 <--
HU 201671	B	19901228		
CA 1302266	C	19920602	CA 1987-536688	19870508 <--
IL 82459	A	19940731	IL 1987-82459	19870508 <--

US 5043328 A 19910827 US 1989-304717 19890201 <--
PRIORITY APPLN. INFO.: DE 1986-3615710 A 19860509
EP 1987-106520 A 19870506
US 1987-46650 B3 19870507
OTHER SOURCE(S): MARPAT 109:43459
GI



I II

AB The title composition contains ≥1 unsat. C18-22 fatty acid derivs. containing 3-5 isolated double bonds and which may be Me or Et substituted at the 2, 3, 16-20 position, selected from the free terminal carboxylic acids, amides, or CO2X derivs. (X = protecting group removable under acidic conditions, 1- or 2-lysophospholipid, metal cation, amine cation, cationic ion-exchanger). It also contains a stimulator with simultaneously stabilizing properties selected from ≥1 phenols I (R1 = OH, CO2H, CH2CO2H, CH:CHCO2H, CH2CHR4R5, CH(OH)CH2NHR6; R2, R3 = H, OH; R4 = H, CO2H; R5 = H, NH2; R6 = H, Me, Et]; indoles II (R7 = H, CO2H; R8 = H, NH2; R9 = H, OH); cysteine, homocysteine, or liponic acid wherein the alicyclic alkyl residue may be shortened by <4 CH2-groups; a peptide containing ≤10 amino acids and in which ≥1 may be replaced by any of the above compds.; one of the above amino compds. substituted by C1-4 alkyl; a flavonoid substituted by ≥1 OH linked to a sugar residue; a salt of the above named compds.; as ester containing an alkoxy-containing residue, or its amide, mono- or dialkylamide. Addnl., it contains stabilizers selected from DMSO, EtOH, polyols, polyol esters, phospholipids, sugar lipids, cyclodextrins, proteins, cytochrome c derivs., or E-vitamins in solid or liquid form. A mixture containing 0.3 mL 0.03M K phosphate buffer, 0.5 mg enzyme (from sheep sperm vesicles or homogenate of kidney medulla), 2.75 μg 14C-arachidonic acid, and 0.5 mg I [R1 = CH2CH(NH2)CO2H, R2 = R3 = H] (stimulator) was incubated for 10 min at 37° and quenched with citric acid. The formation of total prostaglandin increased 5.5-fold over the amount formed in the absence of a stimulator; the relative amts. of PGE2, PGF2α, and PGD2 with stimulator were 81, 2, and 17%, resp., and 83, 2, and 15%, resp., in the absence of a stimulator.

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
RL: BIOL (Biological study)
(pharmaceutical containing prostaglandin synthesis stimulator and)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

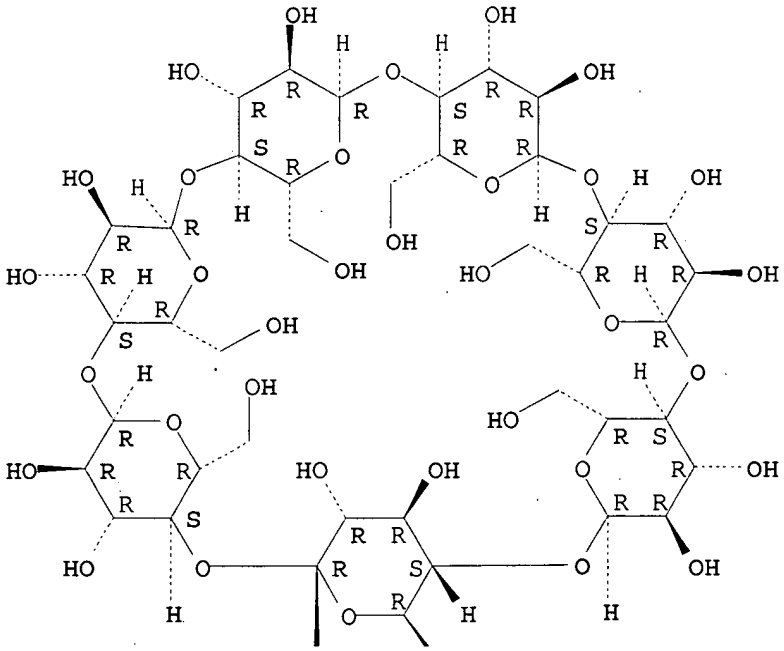
Double bond geometry as shown.

IT 7585-39-9, β-Cyclodextrin 10016-20-3, α-Dextrin 17465-86-0, γ-Dextrin
RL: BIOL (Biological study)
(pharmaceutical containing unsatd. fatty acids and, as prostaglandin

synthesis stimulator)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

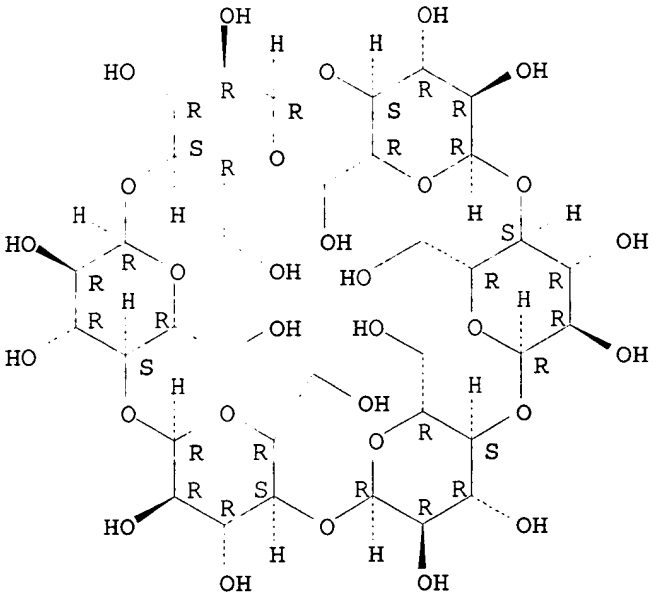
PAGE 1-A



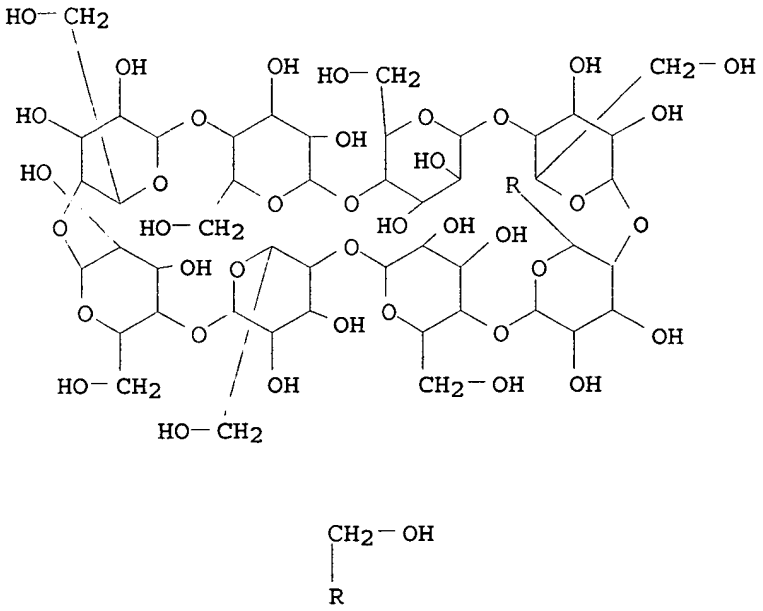
PAGE 2-A

RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



L25 ANSWER 33 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:477674 HCAPLUS
DOCUMENT NUMBER: 105:77674
TITLE: Stabilization of lipids by molecular inclusion: cyclodextrins and casein as antioxidants
AUTHOR(S): Laakso, Simo
CORPORATE SOURCE: Dep. Biochem., Univ. Turku, Turku, 20500, Finland
SOURCE: Lipid Oxid.: Biol. Food Chem. Aspects, Contrib. LIPIDFORUM/SIK Symp. (1986), Meeting Date 1985, 165-70. Editor(s): Marcuse, Reinhard. Scand. Forum Lipid Res. Technol.: Goeteborg, Swed.

CODEN: 55ATAL
DOCUMENT TYPE: Conference
LANGUAGE: English

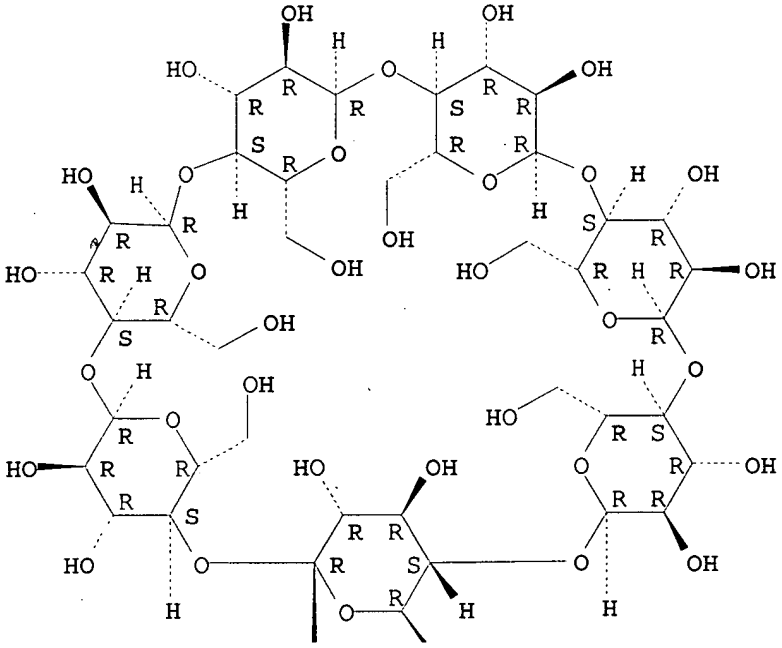
AB The effects of cyclodextrin and casein inclusion on the kinetics of linoleic acid [60-33-3] and arachidonic acid [506-32-1] oxidation in dispersions containing lipoxygenase or Na bisulfite were evaluated by monitoring free radical side reactions and O consumption. The fatty acid peroxidn. inhibition by casein was primarily by reversible inclusion of the free polyunsatd. fatty acid. Cyclodextrins and casein inhibited both enzymic and nonenzymic peroxidn. Inhibitor consts. were relatively high unless the concentration of fatty acids was limiting.

IT 7585-39-9 10016-20-3 17465-86-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antioxidant activity of, polyunsatd. fatty acids inclusion in relation to)

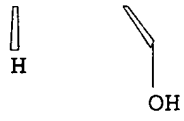
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

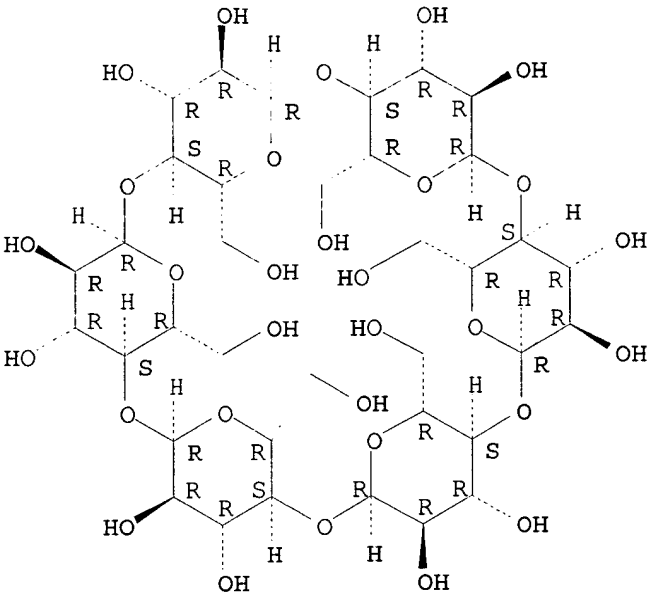


PAGE 2-A

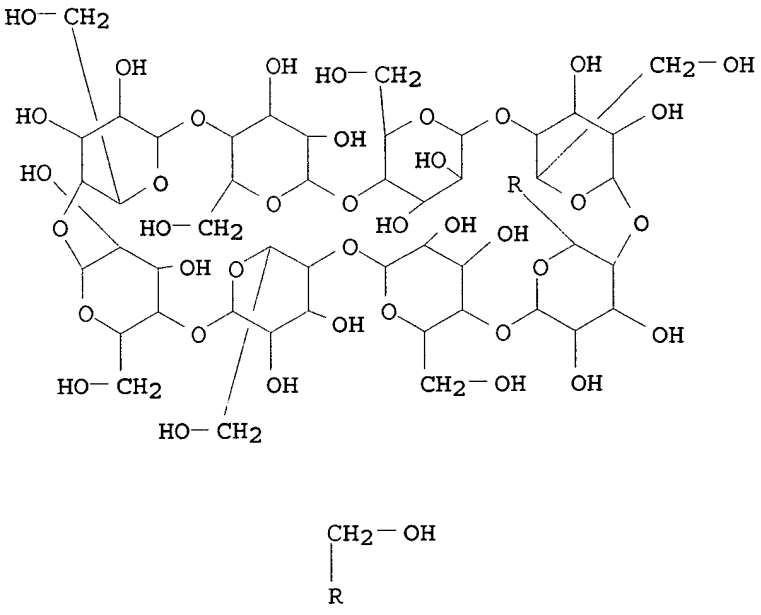


RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

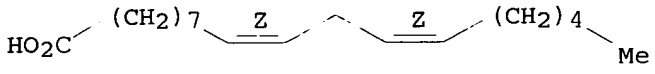


RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



IT 60-33-3, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peroxidn. of, casein and cyclodextrins inhibition of)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

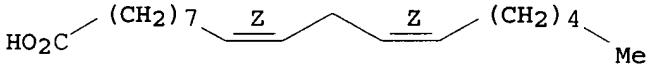


L25 ANSWER 34 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:164689 HCAPLUS
DOCUMENT NUMBER: 104:164689
TITLE: Growth of an established line of mouse mammary tumor cells under serum-free conditions
AUTHOR(S): Kawamura, Kazuo; Enami, Jumpei; Kohmoto, Kaoru; Koga, Mutuyosi
CORPORATE SOURCE: Sch. Med., Dokkyo Univ., Mibu, 321-02, Japan
SOURCE: Dokkyo Journal of Medical Sciences (1985), 12(2), 167-80
CODEN: DJMSDB; ISSN: 0385-5023
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An established line of mouse mammary tumor cells (MTD cells) were cultured in a serum-free medium consisting of a 1:1 mixture of Dulbecco's modified Eagle's medium and Ham's F-12 medium supplemented with bovine serum albumin (BSA), insulin, and transferrin. To promote cell attachment and spreading, culture dishes were precoated with plasma fibronectin isolated from fibrinogen. Under these serum-free conditions, MTD cells grew at a rate close to that attained by the serum-supplemented medium. Among the additives in the serum-free medium, BSA was replaced with oleic acid or a complex of oleic acid and α-cyclodextrin. Transferrin was replaced with Fe2+ or Fe3+. Addition of polyvinylpyrrolidone further improved the growth. Thus, MTD cells can be grown on a fibronectin-coated surface in a chemical defined medium with insulin as the only protein supplement. MTD cells grown under the serum-free conditions still retained the differentiated properties of the original MTD cells; i.e., the production of mouse mammary tumor virus in response to dexamethasone.

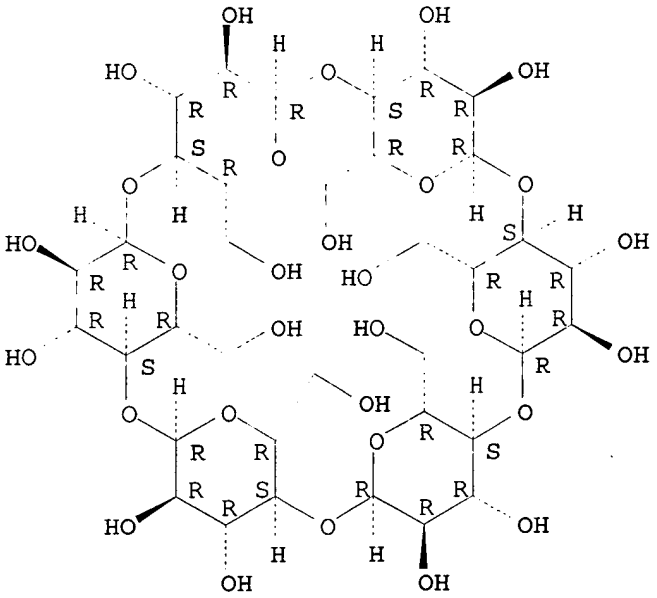
IT 60-33-3, biological studies 10016-20-3
RL: BIOL (Biological study)
(mouse mammary tumor cells in culture response to)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



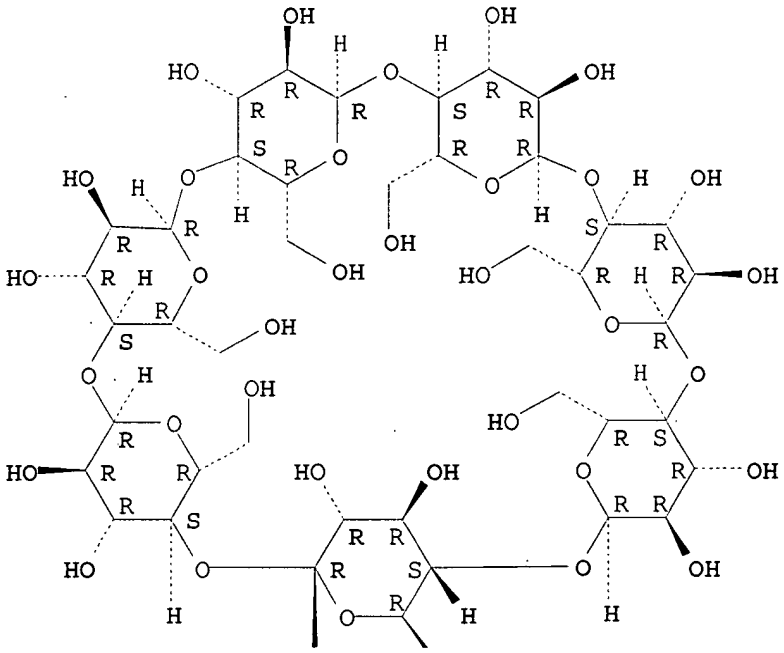
L25 ANSWER 35 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:81327 HCAPLUS
DOCUMENT NUMBER: 100:81327
TITLE: Inhibition of lipid peroxidation by casein. Evidence of molecular encapsulation of 1,4-pentadiene fatty acids
AUTHOR(S): Laakso, Simo
CORPORATE SOURCE: Dep. Biochem., Univ. Turku, Turku, SF-20500/50, Finland
SOURCE: Biochimica et Biophysica Acta, Lipids and Lipid Metabolism (1984), 792(1), 11-15
CODEN: BBLLA6; ISSN: 0005-2760
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The capability of cyclodextrins to form mol. inclusion complexes with linoleate resulted in inhibition of oxygenation in a lipoxygenase-linoleate model reaction. The inhibited rates were established instantaneously upon addition of the complexant and were maintained until linoleate was exhausted. Total cessation of the reaction was not obtained with cyclodextrins. Casein-inhibited reaction mixts. also exhibited these characteristics. Both casein and cyclodextrins protected linoleate against autoxidn., although they did not change free radical generation by xanthine oxidase or Fe2+ reactions. Since neither of the inhibitors affected the enzyme directly, casein may act, in analogy with cyclodextrins, by forming linoleate complexes which reduce the oxidizable monomer fatty acids via a standing equilibrium and thus result in substrate limitation of reaction rates. Comparisons of lipid peroxidn. at acidic and alkaline pH, in the presence of increasing amts. of the complexants, detergent, and hydroperoxides, supported this view.

IT 7585-39-9 10016-20-3 17465-86-0
RL: BIOL (Biological study)
(linoleate peroxidn. inhibition by, mechanism of, casein in relation to)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

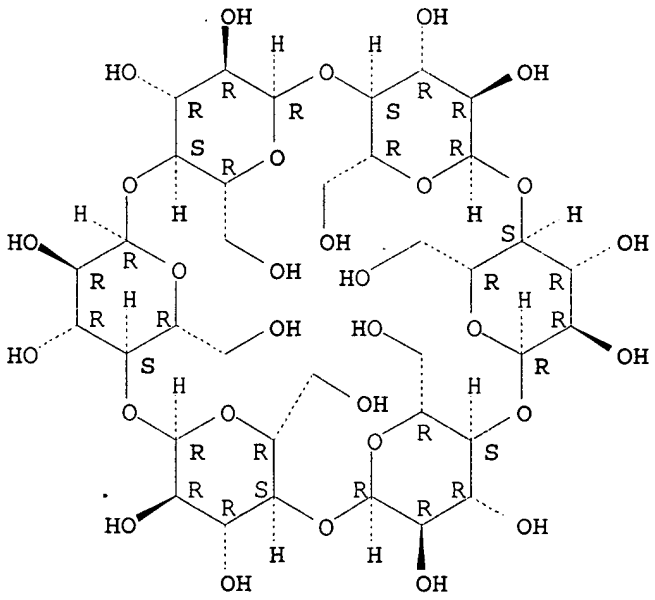
PAGE 1-A



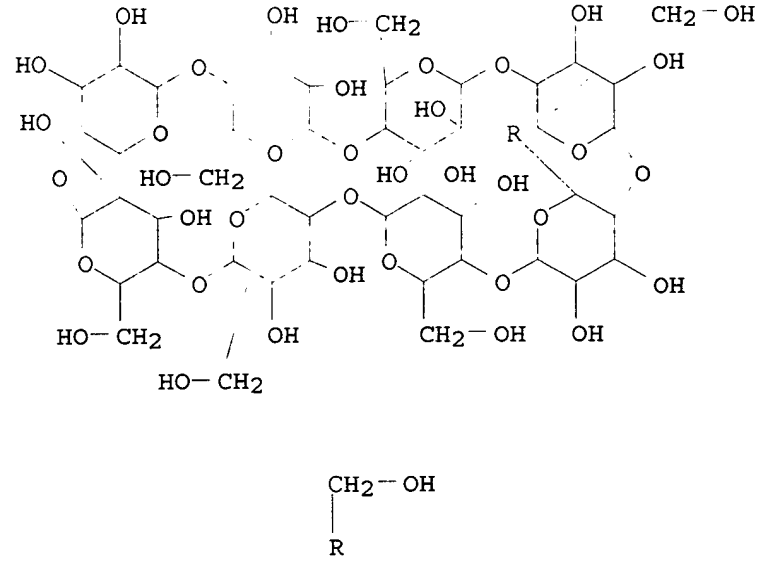
PAGE 2-A

RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

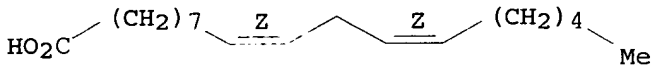


RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



IT 60-33-3, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peroxidn. of, enzymic and spontaneous, casein and cyclodextrins inhibition of, mechanism of)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



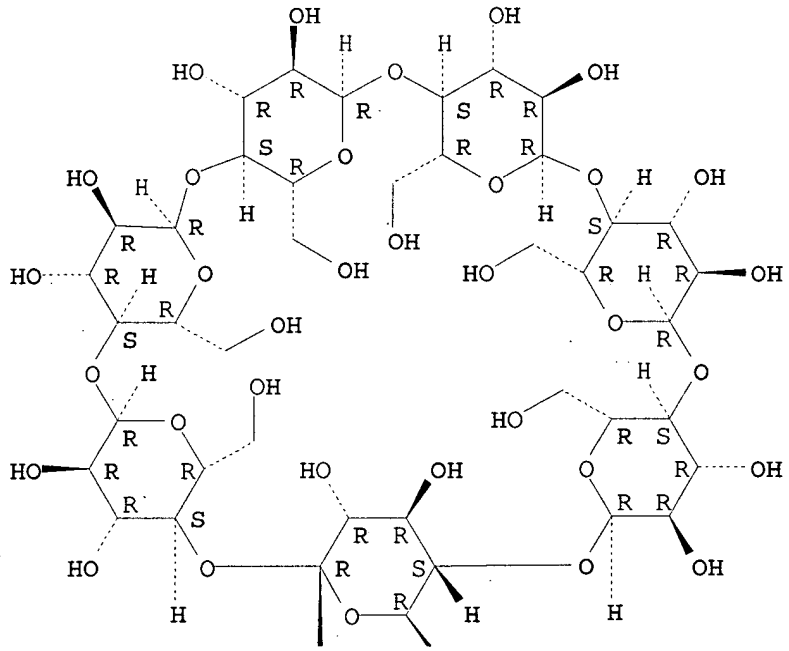
L25 ANSWER 36 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:124329 HCAPLUS
DOCUMENT NUMBER: 98:124329
TITLE: Oxidative degradation of β-cyclodextrin induced by lipid peroxidation
AUTHOR(S): Kawakishi, S.; Satake, A.; Komiya, T.; Namiki, M.
CORPORATE SOURCE: Mie Univ., Nagoya, 514, Japan
SOURCE: Starch/Staerke (1983), 35(2), 54-7
CODEN: STARDD; ISSN: 0038-9056
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The oxidative degradation of β-cyclodextrin (β-CD) [7585-39-9] induced by autoxidn. of linoleate [60-33-3] was investigated in th solid system composed of β-CD and linoleate. β-CD was oxidized with a propagative oxidation of linoleate to induce the cleavage of its glucosidic linkage and this degradation proceeded proportionally with the moisture content in the solid system. The oxidative cleavage of β-CD gave several kinds of oligosaccharides which were composed of D-erythrose, D-arabinose, D-erythropentosulose, D-xylopentdialdose, D-glucose and deoxyunsatd. hexose as their reducing

terminals. These degradation of β-CD seemed to be initiated by certain radical species formed from the peroxidn. of linoleate.

IT 7585-39-9
RL: PRP (Properties)
(degradation of, by linoleic acid peroxidn., products from)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

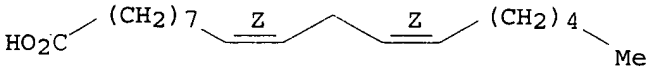
PAGE 1-A



PAGE 2-A

IT 60-33-3, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peroxidn. of, cyclodextrin degradation by, products from)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L25 ANSWER 37 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:612006 HCAPLUS

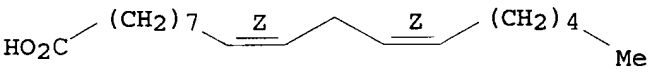
DOCUMENT NUMBER: 97:212006
TITLE: α-Cyclodextrin: a partial substitute for bovine serum albumin in serum-free culture of mammalian cells
AUTHOR(S): Yamane, Isao; Kan, M.; Minamoto, Y.; Amatsuji, Y.
CORPORATE SOURCE: Inst. Tuberculosis Cancer, Tohoku Univ., Sendai, 980, Japan
SOURCE: Cold Spring Harbor Conferences on Cell Proliferation (1982), 9(Growth Cells Horm. Defined Media, Book A), 87-92
CODEN: CSHCAL; ISSN: 0097-5230
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The use was investigated of oleic acid- or linoleic acid-α-cyclodextrin inclusion complexes as albumin substitutes for mammalian cells. α-Cyclodextrin did not show any cytotoxic effects at 2g/L medium. Growth curves are shown for 2 types of cells. UMCL cells grew well enough in the cyclodextrin-complex-containing, serum-free medium, whereas HEL cells required a small amount of albumin in addition to cyclodextrin for abundant growth.

IT 60-33-3D, α-cyclodextrin inclusion complexes
10016-20-3 10016-20-3D, fatty acid inclusion complexes
RL: ANST (Analytical study)
(as albumin substitute, in serum-free cultures of mammalian cells)

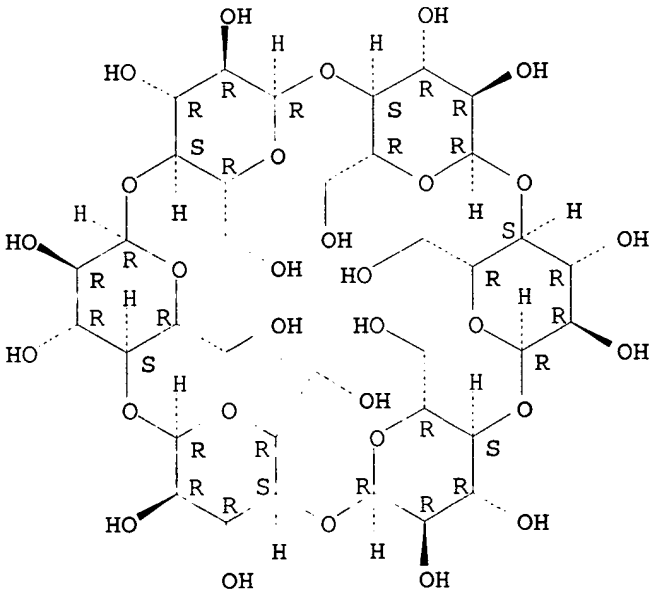
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



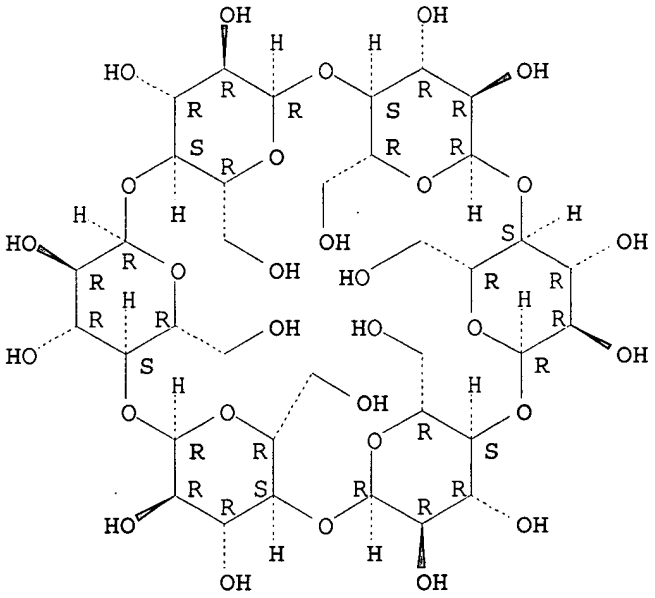
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

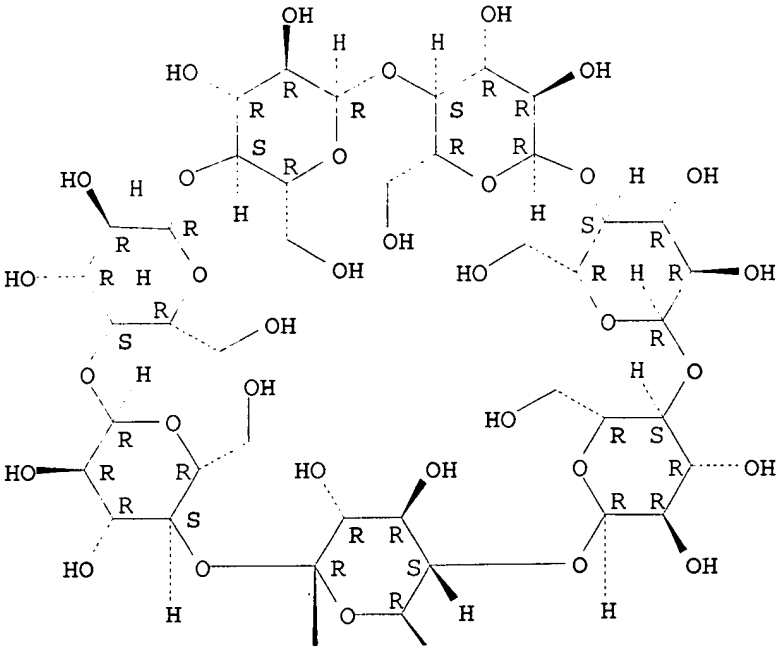
Absolute stereochemistry.



L25 ANSWER 38 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:100488 HCAPLUS
DOCUMENT NUMBER: 96:100488
TITLE: α-Cyclodextrin, a novel substitute for bovine albumin in serum-free culture of mammalian cells
AUTHOR(S): Yamane, Isao; Kan, Mikio; Minamoto, Yoshiki; Amatsuji, Yasuo
CORPORATE SOURCE: Res. Inst. Tuberc. Cancer, Tohoku Univ., Sendai, 980, Japan
SOURCE: Proceedings of the Japan Academy, Series B: Physical and Biological Sciences (1981), 57(10), 385-9
CODEN: PJABDW; ISSN: 0386-2208
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The use of α-, β-, and γ-cyclodextrin (CD) in combination with unsatd. fatty acids as a serum substitute in mammalian cell cultures was examined by using a human lymphoblast cell line (UMCL) grown in RITC 56-1 medium supplemented with synthetic lecithin, cholesterol, galactose, and mannose and by using human diploid fibroblasts (HEL) grown in RITC 80-7 medium. On the basis of cytotoxic and cost considerations, α-CD was used for the expts. Both α-CD-oleic acid and α-CD-linoleic acid had growth-enhancing effects on UMCL cells up to 100 mg/L medium but exhibited toxic effects at higher concns. However, when 100 mg α-CD included with both fatty acids and 1000 mg free α-CD were added to 1 L of medium, stable and reproducible growth-promoting effects were observed With HEL cells, growth similar to that in bovine serum albumin-supplemented medium was observed by addition of a concentrated α-CD complex to a final concentration of 10-20 mg/L.
IT 7585-39-9
RL: ANST (Analytical study)
(mammalian cell culture containing, cytotoxic effect of)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

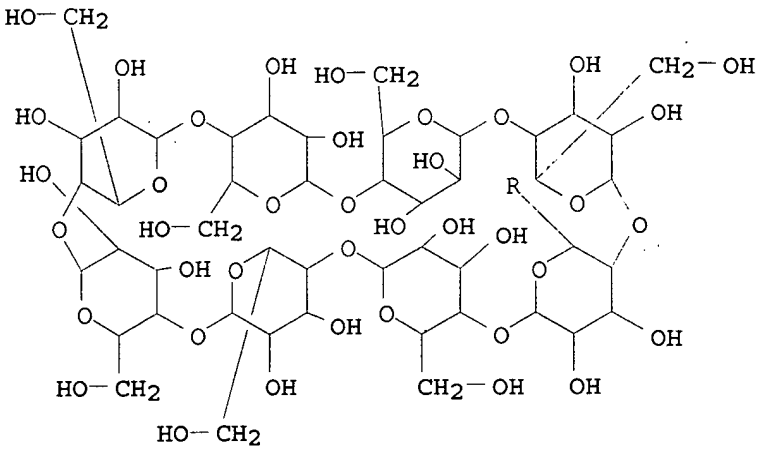
Absolute stereochemistry.

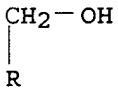
PAGE 1-A



PAGE 2-A

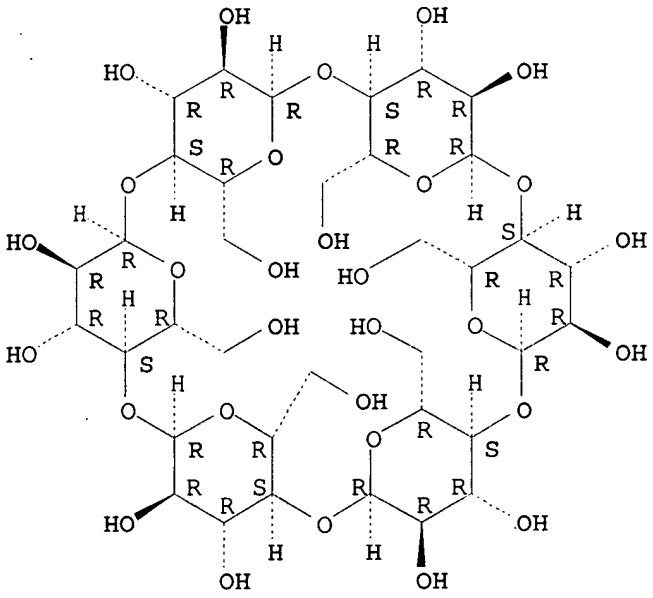
IT 17465-86-0
RL: ANST (Analytical study)
(mammalian cell culture containing, growth enhancing effect of)
RN 17465-86-0 HCAPLUS
CN γ-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)





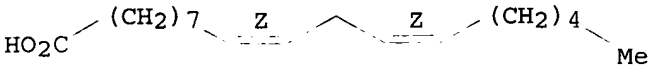
IT 10016-20-3
RL: ANST (Analytical study)
(mammalian cell culture containing, growth-enhancing effect of)
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 60-33-3, biological studies
RL: BIOL (Biological study)
(mammalian cell culture containing, in cyclodextrin presence, growth-enhancing effect of)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L25 ANSWER 39 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:22061 HCAPLUS
DOCUMENT NUMBER: 92:22061
TITLE: Enrichment of the unsaturated fatty acid content in fatty acid mixtures by formation of inclusion complexes with cyclodextrin
INVENTOR(S): Szejtli, Jozsef; Banky, Mrs. Tamas; Stadler, Mrs. Istvan; Tetenyi, Peter; Hethelyi, Mrs. Ivan; Kernoczi, Mrs. Lajos
PATENT ASSIGNEE(S): Chinoin Gyogyszer es Vegyeszeti Termekek Gyara Rt., Hung.
SOURCE: Hung. Teljes, 18 pp.
CODEN: HUXXBU
DOCUMENT TYPE: Patent
LANGUAGE: Hungarian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
HU 16602	A2	19790328	HU 1977-CI1730	19770420 <--
HU 174279	B	19791228		

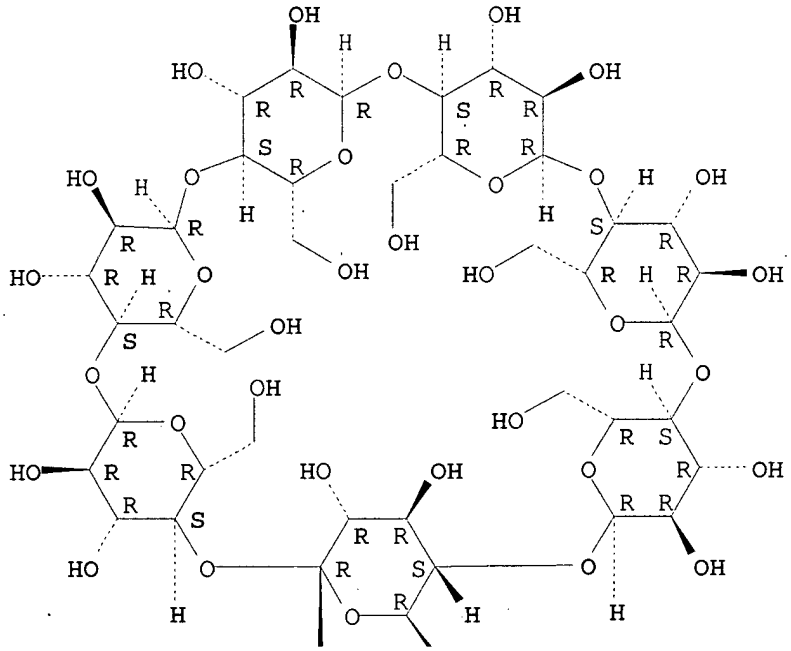
PRIORITY APPLN. INFO.: HU 1977-CI1730 A 19770420

AB The stability of complexes of fatty acids and lower esters with cyclodextrin increases with the number of C:C double bonds present in the mol. This was used to enrich the unsatd. content of fatty acid mixts. by 5-50%. Thus, an oil extracted from seeds of Oenothera biennis was esterified with EtOH and a solution of 1 g ester in 5 mL Et2O was added in 10 min to a solution of 5 g anhydrous β-cyclodextrin in 50 mL H2O at 60° under N. After evaporation of Et2O the aqueous mixture was cooled to 20° in 4 h and kept overnight in the refrigerator to deposit 82% complex containing 10.1% fatty acid. It was washed with Et2O, dissolved in warm H2O, the solution was extracted with 1:1 Et2O-petroleum ether, saturated with NaCl, and extracted again. The proportion of linoleic acid/oleic acid increased from 5.14 to 13.7 by this procedure.

IT 7585-39-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(enrichment of unsatd. fatty acid content in fatty acid mixts. by inclusion complexation with)
RN 7585-39-9 HCAPLUS
CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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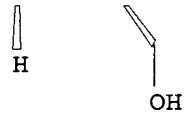
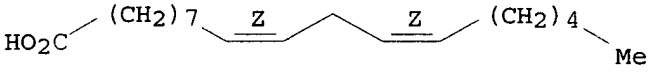


IT 60-33-3P, preparation
RL: PREP (Preparation)
(enrichment of, in fatty acids of Oenothera biennis)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L25 ANSWER 40 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1956:23995 HCAPLUS
DOCUMENT NUMBER: 50:23995
ORIGINAL REFERENCE NO.: 50:4858g-i,4859a-e
TITLE: Stabilization of autoxidizable materials by means of inclusion
AUTHOR(S): Schlenk, Hermann; Sand, Donald M.; Tillotson, Jerry Ann
CORPORATE SOURCE: Univ. of Minnesota, Austin
SOURCE: Journal of the American Chemical Society (1955), 77, 3587-90
CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Adducts of α-dextrin (cyclohexaamylose) (I), β-dextrin (cycloheptaamylose) (II) and deoxycholic acid (III) were prepared with linoleic acid (IV), linolenic acid (V), Me linolenate (VI), PhCH:CHCHO (VII), and vitamin A palmitate (VIII). They were found to be very resistant to autoxidation. The conventional procedure of preparing choleic acids yielded stable products with V and VIII. The products obtained from dextrins with IV, V, and VII needed purification. A heat treatment under high vacuum was found to be reliable for obtaining stable adducts free of oxidizable contamination. The principle of inclusion stabilization appears to be established by these examples and by the previous work on fatty acid stabilization by means of urea (C.A. 44, 11123f). II (8 g.) in 100 cc. O-free 50% aqueous EtOH treated at about 70° with 1.3 g. IV, the mixture stirred 4 hrs. at room temperature and centrifuged, and the solid dried over P2O5 at 0.5 mm. gave 7.7 g. II-IV adduct containing 7.28 g. IV (titrated in hot 50% aqueous EtOH with 0.05N KOH and phenolphthalein. II-IV adduct sublimed after rinsing with N under a high vacuum 9 hrs. at 120-5° gave 6.9% IV. Purified II-IV adduct (1.63 g.) in 100 cc. hot 50% aqueous EtOH extracted twice with 50-cc. portions trimethylpentane, the extract dried and evaporated, the residual oil brominated in Skellysolve F, and the resulting white crystals (75 mg.) repptd. from warm Et2O with Skellysolve F yielded 47 g. tetrabromostearic acid, m. 115-16.5°. II (1.6 g.) and 0.32 g. V treated in the usual manner in 20 cc. aqueous EtOH, the solids isolated and heated 17 hrs. at 122° and 0.5 mm. pressure, two 0.7-g. portions of the residue (each containing 67 mg. V) exposed to pure O in a Warburg apparatus (the manometers being filled with silicone fluid) at 37 ± 0.2° (one in a dry and one in a humid atmospheric) and the charge brominated in the usual manner gave eventually hexabromostearic acid. The II-VI adduct containing 10.8% VI was obtained in the same manner. II (5.0 g.) in 100 cc. H2O and 0.9 g. VII shaken 16 hrs. at room temperature, the solids isolated in the usual manner and heated 3 hrs. at 100-40° and 0.5 mm. gave an adduct containing 10.5% (9.6%) VII (determined as the 2,4-dinitrophenylhydrazone, m. 258-9°) and 0.3% (1.3%) PhCH:CHCO2H. I (2.0 g.) in 15 cc. O-free H2O warmed to 70° with IV in 15 cc. EtOH, the mixture kept 4 hrs. at room temperature, the crystals isolated by centrifugation and dried, and a part heated to 130-60° during 16 hrs. at 0.5 mm. gave I-IV adduct (115 μl. O uptake during 40 hrs. under standard conditions); another part of the crude product digested with 10 cc. EtOH gave I-IV adduct (760 μl. O-uptake). III (6.0 g.) in 20 cc. absolute EtOH and 0.55 g. V in 5 cc. EtOH kept 16 hrs. at -5 to -10° gave III-V adduct containing 8.3% V. The adduct was refluxed 1 hr. with 8 times its weight of xylene, the III-xylene adduct filtered and washed with C6H6, the combined xylene and C6H6 solution evaporated, the oily residue extracted with Skellysolve C, the extract evaporated, and the residue titrated with alkali to determine the acid content. III (1.0 g.) and 0.1 g. VIII in 4 cc. hot EtOH cooled to room temperature, held 12 hrs. at -3°, and the light yellow crystals filtered and dried in a high vacuum gave the III-VIII adduct containing 10.8% VIII.

IT 7585-39-9, Cycloheptaamylose 10016-20-3, Cyclohexaamylose
(inclusion compds. with autoxidizable materials)

RN 7585-39-9 HCAPLUS

CN β-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

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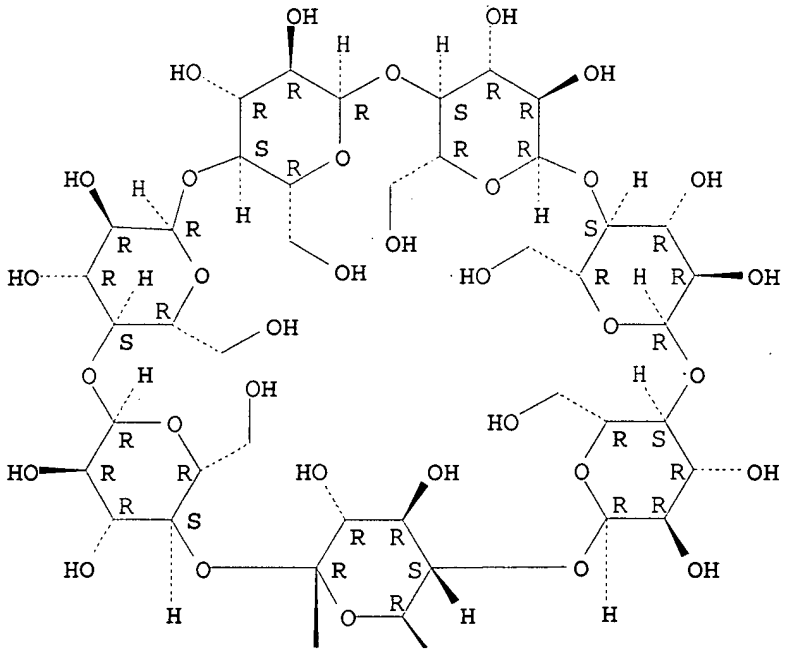

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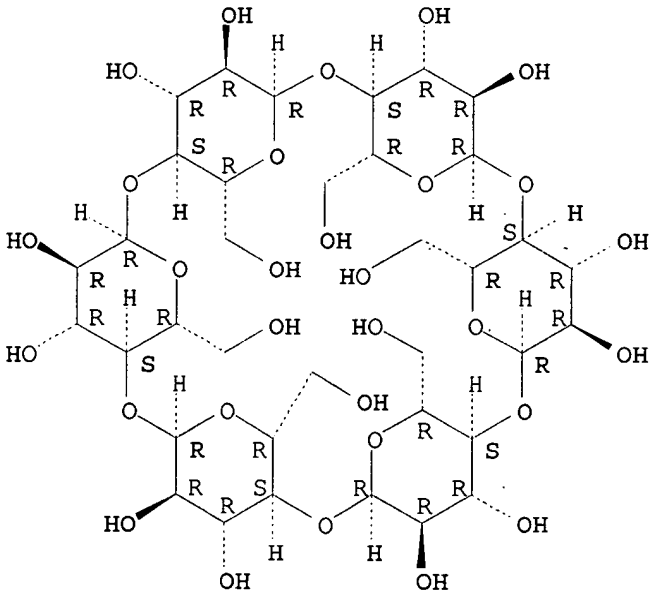
RN 10016-20-3 HCAPLUS
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 60-33-3, Linoleic acid
(oxidation of, prevention of aut-, by inclusion compound formation)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.